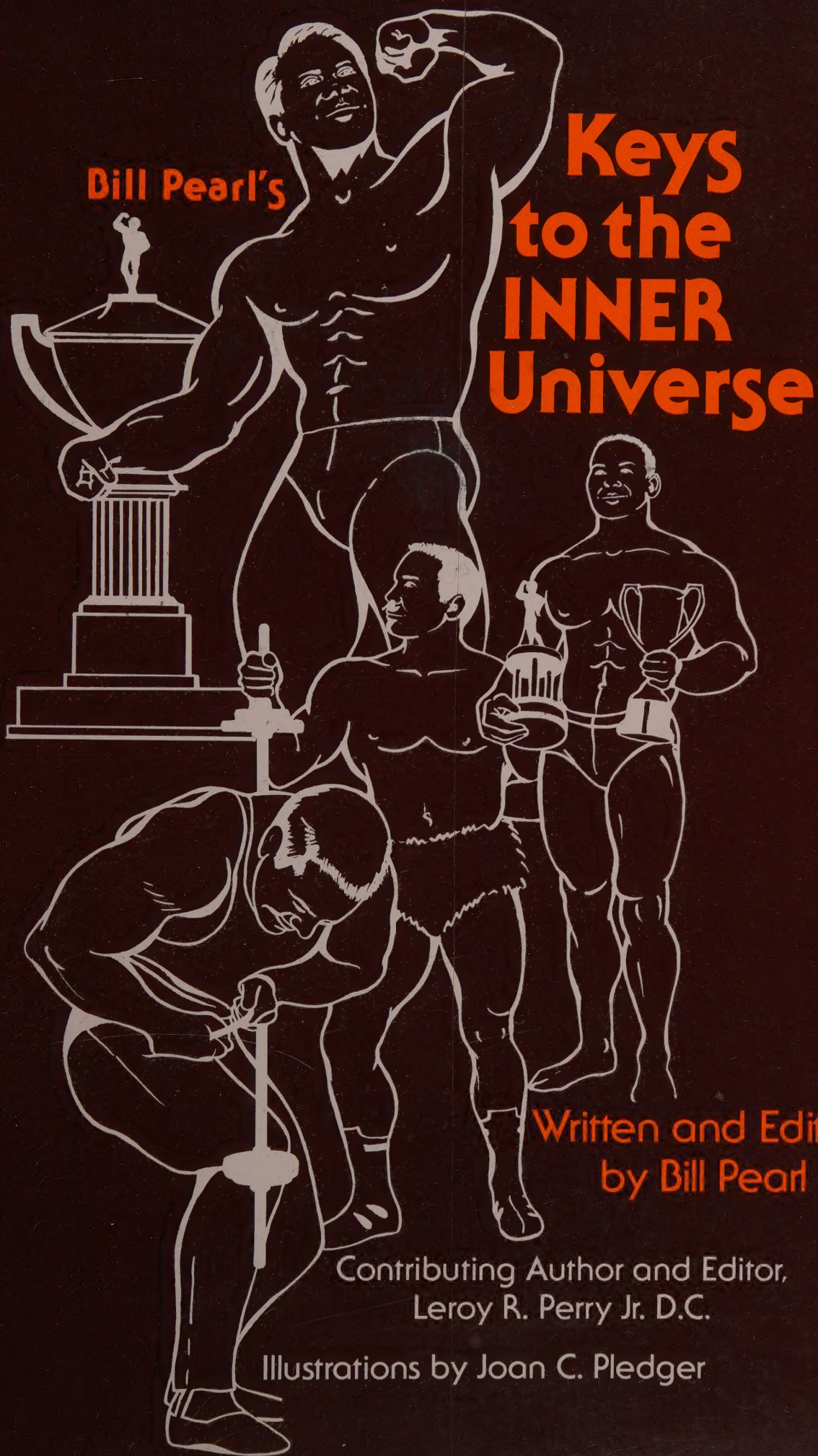




Bill Pearl's

Keys to the INNER Universe

Written and Edited
by Bill Pearl

Contributing Author and Editor,
Leroy R. Perry Jr. D.C.

Illustrations by Joan C. Pledger



"Congratulations, it's fantastic . . . a beautiful job. It's a real piece of art."

HENRY DISHERT
Vishma Press, Forest Hills, N.Y.

"'Keys to the Inner Universe' is, by far, the most complete, most interesting, most informative book on bodybuilding I have had the pleasure of owning. It's a real dynamite book!"

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International Physique Grading Board
Victoria, B.C., Canada

" . . . Your book is a winner! I have never seen such a complete book for weight training and physical fitness. I hope that it becomes a best seller!"

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Loprinzi's Gym
Portland, Oregon

"Your book, 'Keys to the Inner Universe,' is just incredible. I refer to it as the Encyclopedia of Bodybuilding. It contains everything a bodybuilder needs to know."

MIKE MENTZER
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"The exercise and nutrition sections will provide much useful reference material. I most enjoyed reading the personalized material on your own activities."

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Super Fitness International

"A most fabulous book, staggering in size and scope."

PEARY RADER
Iron Man

"I believe Bill Pearl's book is by far the finest that I have ever seen on weight training. I would like to recommend the book to all the members of our Association."

HARRY SCHWARTZ
President
Jack La Lanne Health Spa

"You have made a tremendous contribution to the bodybuilding world by giving us such an extensive encyclopedia of training knowledge."

LARRY SCOTT
Salt Lake City

"Your book reflects the theme and quality of a man we have come to know as a friend."

ALAN SIEBERT
Pasadena, California

"It is the greatest ever. Your book is so thorough it could well be used as a text for anyone from a novice to a Mr. Universe."

CLIFF SWANAGON
San Gabriel, California

"Your book is fantastic! I can't put it down . . ."

JIM WALLACE
Athletic Director
St. Francis High School
La Canada, California

"'Keys to the Inner Universe' . . . has to be the best and finest presented piece of work I have ever seen. Congratulations on a job well done."

BEN WEIDER, C.M.
IFBB
Montreal, Canada

"It [your book] is the finest available, certainly something to be proud of."

JOHN WILLIAMS
Muscle Digest

"You are to be commended for this invaluable contribution to body building."

DONALD WONG, M.D.
Alhambra, California

"May your rewards for it match the content."

GORDON WONG
Scientific Nutrition

William L. Hoag

Keys to the **INNER Universe**

World's best Built MAN

by Bill Pearl



Volume I

Written and Edited by Bill Pearl

**Contributing Author and Editor,
Leroy R. Perry Jr. D.C.**

Cover design, book layout & Illustrations by Joan C. Pledger

**BILL PEARL ENTERPRISES
Physical Fitness Architects**

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by BILL PEARL

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Among the many thousands of loyal fans who have been helpful to me in my career of weight training and the close friendships I have acquired, I would particularly like to thank



LEO STERN

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Joe Weider
King of Body Builders



I take my hat off to this man

PHOTOGRAPH CREDITS

Al Antuck / Arax / Joe Bowes / Albert Busek / George Coates / Denie / Chris Dickerson / John Fritshe / George Greenwood / Jim Morris / Bill Reynolds / Rockwell International / Fred Shandor / Al Simmons / Leo Stern / Cliff Swan / Dennis Tinerino / Doug White / Art Zeller.

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Finally, thanks to my wife Judy for putting up with me.

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Leroy Perry Jr., D.C., has been a great help in compiling this text through his numerous hours of work and because of his vast knowledge in sports medicine.

Dr. Perry had the honor of being the first Doctor of Chiropractics to be chosen as an official Olympic Team Doctor. He was also the Consulting Team Chiropractor for the Los Angeles Dodgers both in the 1977 play-offs and World Series, and is the current chairman of the Sports Medicine Committee for the Southern California Pacific Association AAU. His total credentials could fill several pages.

PREFACE



Bill Pearl has written the following pages with the purpose of presenting complete information on "weight resistive exercise" to "all" who are interested in obtaining physical strength and health, increased power and ability in the performance of athletics, general physical fitness and conditioning or advanced training techniques suitable for all body types.

This is a precisely illustrated professional guide designed by Bill himself to prosper the reader in the "mastery" of weight training — a condensed and power-packed training program for the entire body in a single book.

It is also a manual of experiences, techniques, concepts, and knowledge which Bill has gained and employed throughout his years of training, resulting in systems and methods which he openly discusses.

He informs the reader directly and in detail of the correct positioning of the weights and the corresponding movement necessary to accomplish maximum results in the minimum amount of time!

Bill holds the titles of Mr. America, Mr. U.S.A., and is the four-time winner of Mr. Universe, plus a host of others.

He believes that a "desire" to accomplish a task or to improve oneself is paramount to a person's success. He says, "You must have the desire and then the willingness to work for it."

As a very successful gym owner and operator, he has instructed many in the proper use of weights, including all ages, all types of people in various walks of life with different goals. Business-

men, athletes, professional physique contest winners and many others have benefited increasingly by using Bill's flexible training methods.

Internationally known for his physique exhibitions and remarkable displays of strength, he has demonstrated the use of weights and what they can do — on stage, in stadiums, and school auditoriums all over the world.

Bill is personable to all he meets, giving honor to men when due them, desiring to motivate others to improve; not withholding his own knowledge to do so and, most of all, maintaining his belief and respect for God.

Many men have built themselves to be big in appearance on the "outside" and Bill has become a big and strong man, yet he retained also a bigness on the "inside" . . . I can truly say that he is a credit to the titles he holds.

Weight lifter, body builder, strong man, athlete, advisor in top level athletic programs, author and successful businessman . . . an accomplished individual and regarded with much respect by those who know him.

I wholeheartedly suggest this book to everyone interested in learning and/or teaching the truth about the effects of weight training on the human body. Bill has given the entire subject an honest and thorough treatment. No reader will be disappointed and each one will gain immeasurably. One could also call this comprehensive book "A Complete Training Manual for Weight Instruction" . . . with nothing left out!

T. WADE LAWSON

Bill Pearl

TITLES WON

- 1952 3rd place Mr. San Diego
(San Diego, California)
- 1952 Mr. Oceanside
(Oceanside, California)
- 1953 Mr. Southern California
(Los Angeles, California)
- 1953 Mr. California
(Los Angeles, California)
- 1953 AAU Mr. America
(Indianapolis, Indiana)
- 1953 NABBA Mr. Universe, amateur
(London, England)
- 1956 Mr. USA, professional
(Los Angeles, California)
- 1956 NABBA Mr. Universe, professional,
tall man's class (London, England)
- 1961 NABBA Mr. Universe, professional
(London, England)
- 1967 NABBA Mr. Universe, professional
(London, England)
- 1971 NABBA Mr. Universe, professional
(London, England)
- 1974 WBBG World's Best Built Man of
the Century
(New York, New York)
- 1978 Entered into the WBBG Hall of Fame
(New York, New York)
- 1978 Elected the IFBB National Chairman
of the Professional Physique
Judges Committee
(Acapulco, Mexico)

Bill Pearl's competitive body building career spanned a term of nearly twenty years, which is the longest any top physique star has ever endured. During his entire career of competitive body building, Bill competed in the short sum of eleven physique contests, which is less than some physique men will compete in during a single year. With these eleven contests, Bill won every top physique title there was to win and some titles several times. Pearl's motto is "Strive for quality rather than for quantity."



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Author's Note:

Most people may do all of the exercises found in the Guide to Proper Weight Training with no ill effects. However, if certain movements cause discomfort they should be eliminated. See your doctor and get his approval on the total fitness program.



Both photos (courtesy of Frank Fox) taken at the I.F.B.B. 1978 Mr. Olympia Contest, shows Bill Pearl, age 48, in action. Twenty-five years have elapsed since Pearl won the A.A.U. Mr. America title.

About the Author—BILL PEARL

The Bill Pearl epic began in 1930 in Prineville, Oregon where Bill first saw the light of day. He did not stay there long as the Pearl family was on the move a great deal, because of the depression, before finally settling in Yakima, Washington.

From an early age Bill had an intense desire to be strong and well built. As early as the age of ten, Bill would try to find the hardest odd jobs in the neighborhood, hoping to build his body and strength. This inborn desire drove Bill to search for the way to acquire the outstanding physique he so desired.

One day, years later, a friend of Bill's came to his house all excited and said, "Bill, I finally found the answer for you." In his hand he had a war-time copy of *Strength and Health* magazine. Bill could hardly believe his eyes when he looked through it and saw photographs of John Grimek, Clancy Ross, and Steve Reeves. From the minute he picked up the magazine, he knew he had found "the way."

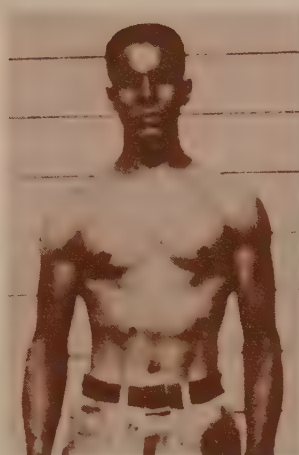
Bill worked all summer long to earn enough money to send away for a York barbell set. Due to the war effort, iron was in short supply and he had to wait two years for the set to arrive. When his hands first touched the weights, little did he know it would set a chain reaction that would be a guiding force for the rest of his life. The end results being acclaimed the best built man in the entire history of the world.

During these early years when still at school, Bill was so enthusiastic about body building that he would write term papers about strong men of the past such as Eugene Sandow, Louis Cyr, Arthur Saxon, and others. Bill himself was never a sickly child; in fact, he was quite a stocky kid and interested in sports. He played softball, ran track, was on the school swimming team, and played football. He admits, however, he was not a natural athlete, and everything came only after much hard effort. In fact, the only two sports he made rapid progress in were wrestling and body building.

Bill can remember taking pictures when he was a youngster of 17 or 18 and his arm hanging at his side measured 11¾ inches, which is a pretty good measurement for a teenager.

After Bill had been training for awhile, his one goal in life was to get his picture in the *Strength and Health* magazine — in fact, any magazine. This single goal kept Bill busy on the weights until he graduated from high school.

In 1950 Bill entered the U.S. Navy and subsequently had very little time to train until he was eventually stationed in San Diego, California, and joined Leo Stern's Gym. This was the turning point for Bill's future. He was now able to receive proper





Photos taken of Pearl in 1952 by his coach Leo Stern.

guidance with his training and had the necessary equipment and competition to push him to a higher set of goals. He entered his first physique contest in 1952 and placed third in the annual Mr. San Diego contest.

Came 1953 and Bill Pearl took the physique world by storm. He took the Mr. Oceanside, Mr. Southern California, Mr. California, Mr. America, and Mr. Universe titles all in one year.

With his enlistment in the navy finished in early 1954, Bill moved to Sacramento, California, and opened his first gym with the money he had saved by taking out war bonds the four years he was in the service — a grand total of \$2,800.00. With the strong determination Bill has for succeeding, the gym was a tremendous success and overnight it was turning out some of the finest physiques the West Coast had ever seen. At one time he had expanded his gym operation to nine different health clubs scattered throughout Northern California. This, however, was not BILL. He was not able to get involved with the people on a personal basis. He therefore eventually cut back to one club and concentrated his efforts on making it the finest in Northern California.

Bill's next victory in the physique world came in 1956 when he won the Mr. U.S.A. contest over the top 35 or 40 physique men in the country. This victory definitely put him at the top of the ladder in world competition, perhaps sharing the spotlight with the great Reg Park until around 1965.

Following the 1956 Mr. U.S.A. win, Bill's next victory was his win at the 1961 Professional Mr. Universe contest in London, England, where he was the unanimous winner, receiving every first place vote.

Because of personal problems, Bill sold his health club in Sacramento in 1962 and moved to Los Angeles, California, and purchased the famous George Redpath Gym.

By this time Bill was in constant demand as a guest poser. He also had a fabulous strength act which included blowing up hot water bottles until they would burst, spike bending, chain breaking, and tearing auto license plates in half with his bare hands. He was also performing such lifting feats as: a seated press behind neck with 310 lbs, military pressing 320 lbs, bench pressing 450 lbs, front squatting 500 lbs and full squatting with 605 lbs at a body weight of 218 lbs.

He was the most widely traveled Mr. America on record, having made trips around the world performing in nearly every foreign country, giving exhibitions, feats of strength, and lectures on physical fitness. His main theme was always to present himself as a gentleman and a spokesman fitting for the sport of body building. He appeared before crowds of 25,000 people in India, was the special house guest of such distinguished men as J. Paul Getty and other top notables.

By now the Pearl physique was a legend and he



Navy food and hard training were starting to pay dividends for Bill's physique.

was still improving every year. He continued to set higher and higher standards for the newcomers. Not only continuing to push himself to higher esteem, Bill still found time to help others reach the top in the physique world by turning out Mr. Americas and Mr. Universes about as fast as he was winning the contests himself.

Thus it was in 1967 that Bill decided to enter the Mr. Universe contest for the last time at the age of 37 and had plans of retiring from competition and devoting his extra time to others he felt would appreciate the limelight more than he.

Bill again took Britain by storm and won hands down, taking every first place vote. Most people admitted he was the world's Number One by far. He was in the greatest shape of his life at that time and some of the pictures published of Bill around this time were simply fantastic. Many body builders believed Bill had secrets he was not sharing with the rest of the physique world.

The following are Oscar Heidenstam's comments taken from the British publication, *Health and Strength*, dated October 26, 1967. "Let us be honest, focus was on the amazing Bill Pearl, and who, if anyone, could in any way match up to him . . . Surely the news that someone like Pearl is competing must inevitably deter those who come from a long way and at considerable cost. Class 1 — All the way it was Pearl, here we saw the supreme. Physique, pos-



Hard work and desire were the only secrets Bill had for physical improvement.



First photo of Bill to appear in a physical culture magazine.

ing, personality, the man himself, everything a champion should be. No superlative could describe this man, he was perfection itself, the master. It was easy for him, yet so inspiring. Who could be second to such a man? . . . The Overall Professional Mr. Universe 1967 just had to be BILL PEARL AND WAS THERE EVER A BETTER ONE?"

Over the years Bill had long thought of opening a health club that would have universal appeal. His main idea was to separate the business men and light trainers from the body builders and heavy power lifters. This would mean that anyone, regardless of their present physical condition or goals, could use facilities that most appealed to them. His several years of consulting with North American Rockwell's Aerospace Program as athletic advisor to the Medical Staff, headed by the renowned Harold Morrison, M.D., had made Bill even more aware that proper weight training could improve nearly every person's life style if properly performed.

With this in mind, he sold his gym in Los Angeles and purchased a beautiful modern building in Pasadena, California, that was suitable to his needs. He then proceeded to build one of the finest private health facilities in the United States.

With his contest days over — or so he thought — Bill wanted to stay in excellent health and devote all his time to his family, business, and helping others acquire superb health. THEN CAME THE BOMB-SHELL!

It was rumored through various physique magazines that Bill was afraid to compete in contests in which other star physiques were entered. He did not take these attacks seriously at first, as he did not think that anyone would expect him at over 40 years of age to do battle with these younger fellows in their twenties. He'd had his share of the limelight. Youth must be served.

However, he had not reckoned with the attitude of his old friend and advisor, Leo Stern. These rumors had upset Stern more than it had Pearl. Leo talked to Bill and told him that this would be the ideal way to settle the argument once and for all. Bill was very skeptical because of business pressures and the strain it would put on his wife. Leo kept on insisting that not only could Bill work around the obstacles, he could get into the best shape of his life and beat them all.

So it was the team of Pearl and Stern embarked on what would be the most vital contest in which Bill has ever competed. A lot of these fellows had something going for them that Bill did not and would not have — DRUGS. He absolutely refused to use anabolic steroids in his training methods. He firmly believes that while these drugs have an important place in the world of medicine, they are in no way meant to be used by the man who desires to improve his

physique by lifting weights. In fact, this was to be a major factor in Bill's decision to have just one more try and compete against these people. It thus became a quest to prove to the same-minded bodybuilders throughout the world that resorting to the dangerous practice of using drugs is not only unnecessary — it is, in Bill's opinion, "sheer madness."

With the decision made, Bill, with the help of Leo, began to prepare himself to do battle with the cream of the present-day bodybuilders. It was well publicized early in 1971 that Pearl intended to enter the annual Mr. Universe contest in London. This meant that anyone who wished to compete against him had ample and equal time to prepare himself for the event.

Over the course of a year Bill Pearl transformed himself from a great physique to the absolute greatest physique ever! Exercise programs and diets were carefully worked out and from it evolved an absolutely fantastic Pearl that not even his closest friends could believe.

On Friday, September 17, the pre-judging was held to determine who would be the amateur and professional Mr. Universe winners for 1971. Great physiques journeyed from all over the world in what would be the most hotly contested Mr. Universe ever.



Mr. San Diego 1952. Hugh Cobb 1st, James Durden 2nd, Bill Pearl 3rd. Hugh Cobb won all subdivisions.



On the afternoon of the next day the famous Victoria Palace was packed to the doors, as usual, for the 23rd annual Mr. Universe contest. The capacity crowd enjoyed a fabulous show, then waited with baited breath until at last the announcements were about to be made. "Ladies and gentlemen, the 1971 N.A.B.B.A. amateur Mr. Universe is Ken Waller of the United States." This was a very popular decision and that grand old theater rang to resounding applause. You could almost hear a pin drop when M.C. Cecil Peck went on, "Ladies and gentlemen, the 1971 N.A.B.B.A. professional Mr. Universe is . . . BILL PEARL!" That huge crowd went wild, cheering what must have been one of the most popular decisions since the contest began in 1948.

A hush came over the crowd as Pearl walked toward the microphone to say a few words to his thousands of fans and a little man jumped to his feet and with his finest English accent began to shout at the top of his lungs, "PEARL IS KING."

Returning home from England, after a brief tour of the Continent with his wife and the Sterns, Pearl put himself into virtual isolation from the physique world except for his business. He gave no exhibitions, no appearances, nothing. Being asked why he had taken this attitude, Bill replied, "My main reason for entering the 1971 Mr. Universe contest was to prove a point and I did. The trophy or the title meant very little to me. I wanted it forgotten and over. I actually felt strange on stage and felt I should have been there as a consular or a judge rather than a competitor. It reminded me of an old man trying to act like a kid. I felt I had my day and enough was enough."

Bill started competing in bicycle racing in 1972 and purposely dropped his body weight to 185 lbs. Still continuing to weight train daily, he altered his training to fit his new sport. He rode and competed in races until 1975 and then returned to hard training again bringing his body weight back up to 225 pounds and dropped the bike riding to a weekend hobby.

With very few photos and articles appearing in the physique magazines, plus the news that Pearl had stopped serious training, he was no longer a threat to the current flock of competitive body builders. Bill was now able to get at the goal he had wanted to attempt for years but could not find the time — getting all the weight training knowledge, material and data he had stored up on paper in hopes of helping others meet their goals in life. This guide is a part of that goal.

Still as active in the gym business as ever, Bill's daily life style is still crammed with fourteen and sixteen hour work days. He is a compulsive worker and enjoys setting new challenges for himself.

In 1976 Bill and Judy (his wife) purchased a small ranch in Southern Oregon and had the property altered to fit their desires. Currently they spend one week each month at their new home.

The ranch is nestled on the edge of hundreds of miles of forest with only a handful of neighbors to share the beautiful view. The property consists of two large Spanish homes, a ten-car garage, a large barn, workshops, and a huge modern gym. There are fruit and nut trees scattered over the property, along with grapes and different berry bushes. A large organic vegetable garden helps keep their table filled with natural wholesome food. Two natural wells supply the property with water. One half of the barn has been converted to office space for mail order and correspondence.

"My next goal is to eventually move to Oregon and spend one-half of each working day working the farm and the other half on mail order and my old car hobby," stated Bill. "I want to try to keep the guest house filled with my friends and people who are interested in the same walk of life as I am. Maybe someday I may turn the place into a health farm and handle small groups of people who are sincerely interested in better health. Regardless of the future, the past has been so good to me I have no regrets. My world has been beautiful."





Harold Morrison, M.D., holds his hands over Pearl's eyes for protection as Bill blows up and bursts a hot water bottle during Rockwell International executive luncheon.



Leo Stern keeps a hand on the affair as Pearl holds his hands over a wooden Indian's mouth. Bill is of American Indian descent. The late John Fritshe stands between two of his close friends and admirers: Bill Pearl and Leo Stern.

Introduction

It is my hope that this fitness guide will help you to live life to its most exciting potential. I believe that it can.

In order to do this you must set personal goals for your future and obtain the best possible leadership to help you reach these goals.

My physical fitness career has been one series of goals after another. I first wanted a 16 inch upper arm. I then wanted to get my photo in a strength magazine. From there I wanted to win a physique title. Continuing upward until I was striving to be the best built man in the world.

Never at any time in my 30 years of training have I ever asked myself to do something I did not think was possible for me.

I did this by taking it one goal at a time, never asking myself to do the impossible.

Approaching each training session as if I were a professional, I kept records on each training session from 1950 until 1971 when I retired from competition by winning the Mr. Universe title for the 4th time at an age of 41.

Even with the success and experience I have had, I never have relied solely on my own judgment with my own physique and progress, but always sought advice and guidance from my close friend and manager, Leo Stern. I feel it is impossible for any man to judge himself constructively and see the many faults each physique has.

Operating my own health club since 1954, I have instructed several thousands of men and women on their roads to better health.

I have also personally trained more physique champions than anyone in the sport.

This has been accomplished by having each of them use the same formula that has worked for me: setting goals, following personal training programs, keeping program records, and seeking advice from the best.

It must be understood that not just any man can become a physique champion. Body structure, body chemistry, heredity, guidance, dedication, and time element all play major roles with the end results. Some of these we can control but some of them we cannot. It is therefore important that each of us realize our own capabilities and to strive for the utmost with what we have. Only a feeling of failure can come from misconception.

Thirty years experience has enabled me to produce this personal fitness guide that will give you the training, guidance, and leadership that will bring out the best in you.

It takes considerable time and energy because it

must be approached as a professional job.

You must start out by studying this guide book from cover to cover and constantly have it available for reference.

Yours in health,



BILL PEARL



Women and Weight Training

Any woman can use this book as a guide to improve her health, figure, athletic ability, and physical fitness. Although the exercise terminology (barbell = beauty bar) (dumbbell = beauty bell) is aimed primarily at men, it is very easy to apply the same basic principles to ladies' training that are used for men. Anything considered a good health practice for a man would apply equally for a woman.

A woman may want to concentrate her weight training exercises to what she considers her **trouble areas** and not concern herself with figure areas that are satisfactory to her. She may want to concentrate on total body training or possibly specialize on certain muscle groups that will improve her ability for a particular athletic endeavor. Proper weight training can make life easier for a woman as well as for a man.

It is a fact that there are more women using weight training — progressive resistance exercise — for conditioning, physical improvement, and a hobby, than men in the United States. The largest chain of gyms in the world is strictly for women. All of the other larger health club organizations that cater to men and women have a ratio of twice as many women members as men.

Another interesting fact is that it is far easier for a woman to develop a beautiful figure than it is for a man to build large muscles. Women respond to weight training quickly. The improvements begin almost immediately and the results are dramatic and long lasting. Especially if a proper well-balanced diet is followed in conjunction with the exercise.

Weight training has been proven to be the fastest, easiest, and best way to improve the shape, tone, strength, and endurance of the female body. Swimming, tennis, and jogging may be fun and a good form of cardiovascular training, as well as a way of burning calories, but they cannot compare with weight training for figure improvement. Many experts, including myself, feel a combination of weight training and cardiovascular exercise is the optimum for total physical fitness.

Many women have been hesitant to exercise with weights because they are afraid they might develop bulging muscles like a male bodybuilder. That is physiologically impossible. A hormonal factor limits the size to which a woman's muscles may grow. Proper exercise can completely re-

shape a woman's body and greatly increase her strength without any visible increase in muscle mass. Women have a layer of subcutaneous fat between their muscles and the skin that is three to four times greater than that of a man. Proper exercise makes women curvy and more feminine — not muscular.

The late George Bruce was internationally famous for his ability to carve feminine curves and create feminine glamour with weight training exercises. He developed and instructed hundreds of women — including several well known actresses — and his pupils won over 2,000 beauty queen titles. He was considered by most authorities to be the most outstanding individual in the field of figure contouring and developing beauty queens and models. All of his pupils exercised with weights, and most of the girls were capable of deadlifting over 200 pounds and doing partial leg presses with 400-500 pounds!

Dr. L. E. Morehouse, Professor of Kinesiology at the University of California at Los Angeles — he is considered one of the world's greatest authorities in his field — stated “ . . . a woman can be made more womanly by this exercise (weight training) which was formerly considered to be exclusively masculine. Her clothes will fit her better and she'll feel like holding her head up and shoulders back.” Dr. Morehouse also says that his research at UCLA's Human Performance Laboratory proved that weight training can flatten and firm up stomachs, improve muscle tone and carriage, and strengthen the pectoral muscles under the breasts and thus improve the bustline. He further stated, “Women who want to regain youthful appearance should try working out with weights.”

HOW WOMEN CAN USE THIS BOOK

In my more than thirty years as a competitive bodybuilder, gymnasium-health club owner and operator, I have supervised the instruction of many thousands of women. I speak from experience when I say that this book is **just as valuable for women's physical conditioning as it is for men.**

Because there are certain exercises that the average housewife may prefer not to do — or not necessarily need to do — it is a fact that every exercise in this book would be good for any woman interested in physical improvement. Especially if they were interested in improving their performance for any sport.

Conduct becoming a CHAMPION



Arnold Schwarzenegger jokingly trying to talk Bill out of his 1971 Mr. Universe trophy.

It is human nature to want to be successful. Lasting success does not come easily and a price must be paid to obtain it.

Success in body building could come in a short span of time but, lasting recognition takes several years of planning and hard work.

If you want to be a champion, or associate with champions, you must act like a champion. This is far from easy. People are continually trying you and making decisions in their minds as to the kind of person you are. The only things they can judge on are your appearance and actions.

If these are bad, their evaluation of you is bad. Large muscles alone will not bring you lasting success or respectability. You must always be aware of your image and the kind of attention you acquire. In many respects these are more important than an outstanding physique. In time the physique will diminish but it is the overall impact you have made on people that causes them to remember you.

It is therefore important that you become aware of your actions. It is your obligation to yourself, the sport, and fellow men to gain the best image possible.

This kind of image cannot be obtained by offend-

ing people. Remember, people you offend today, young or old, could sit in judgment of you tomorrow.

It is important to understand that success will bring attention to you. It is also important to realize that the right kind of attention can help foster your success. Therefore you must be concerned that you are receiving attention that can pay dividends.

The main object behind this guide is to help you achieve higher goals physically and personally. Most of my recommendations for success are centered around your actions while exercising, but, the same basic format should follow you everywhere. Physical fitness is only a small portion of your total self.

If your personal hygiene is poor, your training gear is smelly and dirty, you need a shave or haircut giving the appearance you care little of yourself, others will care just that much for you. Therefore, always try to present yourself as a professional. Take the extra time to be neat and clean. This is the kind of person people feel comfortable around and want to associate with.

Always be concerned of your actions. Be polite and courteous to everyone. Make it a habit to say hello and good-bye to people. Call them by their



Leo Stern, Craig Whitehead, M.D., J. Paul Getty, and Bill Pearl. Taken in Mr. Getty's house in Surrey, England in 1967.

proper names and don't be ashamed to say Sir or Mam.

Watch your language closely and be sure not to offend people you are talking to or people who may hear your conversation.

Don't discuss controversial subjects with just anyone, or enter into arguments. If a subject becomes heated, drop it. It is just as easy to make a person smile as it is to frown. The results are a great deal more rewarding.

In the gym be sure to pick up after yourself and replace all equipment to its proper location making it easy for the next person.

Do not monopolize equipment but encourage others to work-in with you. Spur them on while they perform the exercise and lend them a helping hand if they commence to get into difficulties. The next time they will be happy to do it for you.

Have loyalty and respect for those who give you of their time and efforts. Share what wealth and success you may achieve with them. Let them, by your actions, know it was appreciated.

If you are training at a club where they charge dues, pay your bills on time or make arrangements to pay them.

If you are a visitor or guest at a health club, offer to pay for the training session. Don't expect the management to take time from their regular customers for you. If you have personal questions, you would like to have them help you with, ask to make an appointment to come back at a convenient time. Offer to pay for the service and take nothing for granted. When leaving, thank the person in charge for the use of the facilities and compliment him on the club if you feel a compliment is in order.

Do your exercising with training gear that covers most of the body and if you perspire a great deal, use a towel to clean up the sweat on the benches, etc. Keep your shirt on and don't spend more time looking at yourself in a mirror, giving the appearance you are self-centered.

When it comes time to practice posing, do so in the privacy of your home or with others who can assist you by giving constructive rather than destructive criticism not between sets of exercises.

If you enter physique contests, never complain about a decision you feel was unfavorable, but instead, be the first to congratulate the winners. Avoid appearing that you are more involved with yourself than your fellow human beings.

Always try to give more than you hope to receive and this attitude alone will raise you to become a champion in your own right.

In closing I would like to illustrate an actual situation that took place at the Mr. Universe contest in London, England, in 1971. I was competing in the professional class for my final contest.

The competition was billed as the toughest ever with such greats as Reg Park, Sergio Oliva, Frank Zane, myself and others all competing for the number one position. Because all of us had been in the limelight for so many years, nothing but a first place victory would have any significance.

All of us had trained for months and we were all in the best possible condition, but Sergio Oliva seemed to be the favorite in many people's eyes. This was his first trip to the Universe contest and the fans in Europe had waited years hoping to see him.

A small frail man was backstage with his young son and the boy was in awe over all the he-men.

The frail man with his son and camera approached Sergio asking him if he would take a photo with the boy? Sergio, possibly being so concerned about the contest, brushed the man aside and told him to come back after the contest was over and there would be a charge for his services.

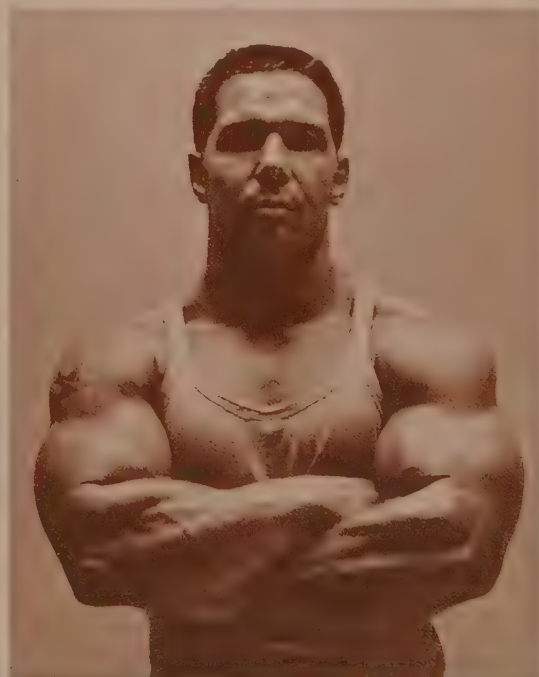
I had not witnessed this event but my manager was standing close by and overheard the conversation.

Next the little man and his son then came over to me and asked the same. I saw the man was sincere and the youngster excited so I immediately turned my attentions to the boy and introduced myself and shook his hand.

While the father got the camera ready, I picked up the lad and put him on my shoulder and looked up into his eyes as he flexed his right arm.

It was all over in a few seconds and I was back preparing myself for the contest.

The next time I saw the man I was on stage and he was sitting as one of the 13 judges determining the outcome of the contest. You take it from there.



Pearl is certainly not lacking forearm size and biceps in this photo taken by Stern.



Bill Pearl, professional Mr. Universe 1967. Arnold Schwarzenegger, amateur Mr. Universe 1967. The two are good friends with much admiration for each other.

You are what you think

Who means the most to you? Who do you dislike the most? Who lets you down most often? Whose fault is it that you are not satisfied with yourself? Whose fault is it that a negative outlook enters into events that are important to you?

If you do some honest answering, you will find that all the answers will be *yourself*. Because we are so concerned with ourselves, we are the most critical of ourselves. And unless we have a constant positive attitude towards ourselves, few projects we undertake will ever materialize, or even be planned.

The material presented in this text will, in particular, not produce benefits *without trust and positive thinking* on your part.

When we are born, we are given a body, success instinct, and a creative imagination. Animals are given a body and success instinct, but no creative imagination. By their success instinct, they know without being taught how to survive; but without a creative imagination, they cannot conceive of trying to better their way of life. It therefore follows that since we are blessed with the additional gift of creative imagination, we should be capable of achieving a great deal of what we do imagine. To have this gift and to never make use of it adds up to the senseless waste of missing one of the best parts of living a full and complete life.

Gravity is a law of nature. We know we fall due to the pull of gravity. Positive thinking, too, is a law of nature, and the only requirement needed to make it work is a creative imagination. You can achieve any idealistic goal if you truly believe you can do it. Think it, and it will follow through.

If you have a negative mental image of yourself you will cause just the opposite reaction that a positive mental image will accomplish; therefore, you will achieve few, if any, of the goals that are so important in your life.

No matter what form of success you are hoping to achieve, you must keep a positive mental image of yourself with you at all times. You must believe in yourself if you are to succeed.

Never be afraid to strive for better things. It is only natural to strike out once in awhile when striving for higher goals; but allowing yourself to do so without a plan and without confidence in yourself would be foolish. You must prepare yourself fully for the job at hand. There is no place for negative thinking; it can only hinder you and waste the time you spend striving toward your goals.

Your brain doesn't care what thoughts you think. It will react to negative thoughts just as easily as it will react to positive thoughts — just as fertile soil will grow weeds as well, if not better, than flowers. "As you sow, so shall you reap."

Positive thinking without a glimmer of doubt may seem like an impossibility, but with constant repetition, it can become a part of your life-style that will pay dividends every day.

You are the most important person you know; and if you are fit, happy, and striving to improve, you can put more of yourself into making others the same way. The cost is no higher than your old negative attitude, but I promise you, the rewards will be ten-fold greater. Make every day work towards creating a better you. Plan your moves and have confidence in your plans. Don't wait for someone else to put the first foot forward. *You* put the foot forward. On the day you can no longer do that — on the day you can no longer produce and contribute — you will want to die. That time is *not now*. *Now* is the time to make a commitment to success by remembering and practicing, "you are what you think."





All work and no play makes Bill a dull boy.

The WHAT, WHERE, WHY—of Exercise

WHY EXERCISE IS NECESSARY

It is almost impossible to enjoy robust health and achieve optimum physical fitness without a planned program of regular exercise. The three essentials needed to achieve excellent health are proper nutrition, proper rest and proper activity — EXERCISE. You can even add another lesser appreciated essential ingredient to improve your health, fitness and longevity: proper mental attitude. Worry, strife and negative thinking do not make for a very happy life. Although diet, rest and exercise are considered the three most important facets of gaining and maintaining good health, remember that positive thinking usually leads to positive action.

WHAT IS PROPER EXERCISE?

Exercising for the daily maintenance of good health and physical fitness differs greatly from the type of exercise a trained athlete or skilled worker pursues to perfect his or her skills which usually involve feats of speed, strength or endurance. Most of us are seldom if ever called upon to run at tremendous speeds, or run ten miles without stopping, or endure great physical stress, or to lift great weights in order to succeed in our vocations or professions.

Take just about any sport and you'll find that most athletes over-condition (by normal standards) because the nature of their competition requires it. But the type of conditioning required to become a track and field champion, tennis star, football player, etc., is no good for the average individual. Exercising until you are stiff or sore is overdoing it. Trained athletes often push their bodies to the absolute physical limit of which they are capable both in practice and especially during competition. Many of the world's greatest athletes compete with painful injuries which are the result of over-condition brought about by his desire and enthusiasm to be a champion.

The goal of the average individual should be to stay in condition to a point where they personally feel best.

The body requires a minimum amount of daily muscular activity on the part of our skeletal muscles to be healthy. To fall below this minimum requirement is to encourage poor health, flabbiness, vague aches and pains, and premature old age.

Proper exercise, therefore, is a planned, supervised program designed to improve and maintain

body measurements to normal symmetrical proportions, and to tone as well as maintain your muscles at normal and optimum efficiency. Once the human body is conditioned, then proper exercise is a program that makes the individual feel as though his body has had a thorough workout, but not completely exhausted.

Regardless of one's age, sex or present physical condition — provided the individual is in reasonably good health and there are no medical reasons why exercise cannot be undertaken — a well planned weight training program provides the safest, fastest and most efficient way to improve both the health and reportion the body to ideal measurements to improve one's personal appearance. In addition to helping you to feel and look better, weight training improves coordination, balance and control of almost all of our skeletal muscles. It is the fastest way known to build strength and almost all great athletes use some type of progressive resistance exercise to improve their speed and develop quicker reactions.

Progressive exercise with weights is one of the best ways to prevent or overcome injuries and physical deficiencies. It makes the entire body more responsive to the will and helps to teach it to do the right thing at the right time when danger or unusual stress occurs. Trained muscles often prevent accidents, possibly fatal ones.

WHY YOU SHOULD EXERCISE

In addition to contributing to better health and a longer lifespan, proper daily exercise can greatly improve the quality of your life. Exercise has been proven to alleviate depression and decrease anxiety, improve your ability to concentrate and work more efficiently, increase your stamina in all physical activities, and helps you (along with proper nutrition) to gain, lose, or maintain the correct body weight.

No other factor affects practically all of the organs of the body more profoundly or more frequently than does muscular work. Exercise improves the performance of the heart, tones the external and internal muscles, improves circulation, aids in flushing fatigue acids and other poisons out of the system, improves metabolic efficiency, speeds up and improves the circulation, helps rid the body of undesirable fat, improves the utilization and distribution of oxygen, improves joint mobility and flexibility, improves digestion and helps to normalize the appetite, increases the supply of blood to the brain enabling you to think more clearly, and improves elimination.

BENEFITS DERIVED FROM WEIGHT TRAINING

Better general health
Better personal mental image
Better total mental outlook
Increased physical strength
Increased performance in other activities
Added personal confidence
Improved mental and physical relaxation
Added personal desires for social and occupational advancements
Better general appearance

POSSIBLE BENEFITS DERIVED FROM WEIGHT TRAINING

Improved personal hygiene
Omission of unhealthy living habits
Improved eating and nutritional habits
Stronger incentive for total self improvement
Stronger incentive for further physical improvement
Stronger incentive for improved social status
Stronger incentive for occupational advancement
Better total health during lifetime
Possible increased life span
Stronger mental impact on friends and associates
Object of envy and admiration to friends and associates
Acquisition of an attention-provoking physique

NEGATIVE CONSIDERATIONS ACCOMPANYING WEIGHT TRAINING

Time element
Cost element
Possible development of narcissistic attitude
Interference with family, social, and occupational obligations
Possible frustrations encountered in seeking advice and leadership for continued physical improvement
Possible dwindling of interest and participation in other physical activities
Adherence to a stricter life-style
Restriction of liberal eating, sleeping, and social habits
Possible loss of interest and participation in social and occupational interests
Frustration created by not obtaining personal physical goals

Muscle and Energy



One of the most powerful body builders of all time, Bill could bend large tent spikes and horseshoes with his bare hands.

Motion is life; stagnation is death. Life itself is a progressive series of changes; and the changes assume many forms, all necessary in the process of living and living well.

As part of our weight training program, our interest is directed primarily at muscular activity, and secondarily at growth and repair rather than any other forms of energy exertion, such as heat production, etc. Since motion is so necessary, the source of motion is of considerable importance. The direct source is *energy*, which we shall discuss a little later.

Everyone has muscles. Because they are the prime reason for assembling this guide book, let us study briefly the structure and activity of muscle tissue. It will help us to understand better the whole process of muscle activity and muscle growth.

Whether voluntary or involuntary, all movements that are made by the body or within the body are produced by muscles. Muscles form the flesh, or the "meat" of the body. Muscle tissue is composed of cells in the form of fibers, which vary in length and shape. The number of these fibers that are bound together, and their length and shape, govern the size and shape of the larger muscles.

There are two distinct types of muscle tissue, one type being voluntary muscles, and the other involuntary muscles. As we are not concerned with affecting the involuntary muscles, we shall confine our discussion to the voluntary muscle tissues. These are the muscles whose fibers are arranged in masses, and have tendons at each end which attach the muscles to the covering of the bone, or periosteum.

Each muscle fiber is a long, narrow, cylindrical cell. In men, the fibers are thicker and heavier than in a woman. And in men whose muscles are well-developed, the diameter of the fiber is greater than in a poorly developed man, thereby making the muscles of the well-developed man larger in size than those of the poorly developed man.

Each muscle fiber is composed of many little fibers, or fibrillae, which are massed together in the main bulk of the muscle, but are somewhat separated at the ends. Around each fibrilla is a very thin layer of connective tissue, and around the entire fiber is a similar layer. The fibers, too, are joined together by a layer of connective tissue, which is somewhat heavier. These layers of stronger tissue serve to hold the muscle cells and bundles together, and to give them strength. They do not have the ability to contract, as do muscles; but they do hold the glycogen (transformed sugar) that serves as fuel for the muscles. Additional glycogen is brought to the cells by the blood, which is carried by tiny blood vessels within the muscle tissue — each fiber thus being in contact with minute vessels.

Surrounding the muscle cells are a group of granular cells somewhat comparable to a clasp or a beaded circlet. These extract certain substances

from the blood and lymphatic fluid and change them so that the cells can use these substances for nourishment. When the muscle cells contract, the granules dissolve and become nutriments for the cells.

When a muscle contracts, it becomes thicker and shorter in its entirety. When the contraction is vigorous from strong nerve stimuli, every cell takes part in this and undergoes these changes. In less vigorous contraction, probably no more than half the muscle cells are so affected.

The musculature of your body is a complex arrangement, and something that man may never hope to duplicate in any mechanical device. While the engine of an automobile or locomotive is marvelous in its construction, it cannot compare in effectiveness with the engine of your muscles — for your muscles really are engines, and work somewhat on the order of the mechanical engines, but without the need for special attention to each muscle.

You have about five hundred muscles in your body, and each muscle is composed of hundreds of thousands of tiny engines, each cell being such an engine. With every movement of the thousands you perform daily, countless thousands of these little engines are brought into action.

The food you eat eventually supplies the charge for each tiny engine. These "charges" are carried by the bloodstream in much the same way energy, in the form of fuel, is carried to a mechanical engine. Instead of spark plugs, nerve impulses provide the "sparks" that touch off the charges in the muscle "engines." The action produced is contraction of the muscle, with many of the little engines of each muscle "exploding" while the action takes place. The more "engines" that explode at the same time, the greater the power (or, the greater the contraction) of the muscle. In the same manner, the more cylinders there are acting together in a car's engine, the greater the power and smoothness of action of such an engine.

After the discharge has taken place — after the muscle contraction — the muscle relaxes. Some of the charge of each tiny engine, incompletely used up in the explosion, hurries back into the engine to serve as fuel again. And if the blood has been supplied with replenishing fuel, more "charges" are added, and the muscle is ready for another discharge, or contraction.

The blood brings fuel steadily to the muscle engines in the form of oxygen, sugar, and other elements. After a discharge, tiny blood vessels carry off waste materials resulting from the discharge — water and carbon dioxide. The former goes to the kidneys to pass from the body in the urine, and the latter goes to the lungs to be exhaled out of the body, as it is now no longer useful. In fact, it is a positive detriment to the body if it remains.

The heart keeps the blood on its circuit about the

body; and the blood, in turn, always is circulating around the millions of little muscles, or cell "engines." The more the engines have to discharge — or the more contractions they perform — the more work the heart engine has to do. It pumps more blood when you work hard, less when you work easily or are at rest. This is because the muscle engines need more fuel when they contract often and vigorously, and the blood with its fuel is brought to them in larger quantities and more often. Also, the more the engines explode in contraction, the more waste they dispel; and consequently, the more blood they require to carry off these wastes in order to prevent the muscles from becoming "choked" by them.

Because more oxygen is needed during exertion to cause the explosions, it becomes necessary for the body to "pant," or breathe faster and deeper while exercising than while at rest. This enables the lungs to supply the blood with the oxygen it must transport to the muscles. The body must also breathe faster so that the blood can get rid of the larger amount of carbonic and gas wastes in it through the lungs. And just as long as more of this gas than normal is present, the body will continue to breathe faster and deeper than normal. When the balance is restored, the body breathes normally again.

Let us now ask, "Where does the driving energy of the muscles come from?" Every normal individual is endowed with the same number of muscles, and all these muscles have the same original structure. Each muscle has the muscle cell (or fiber, or unit); each has the bundles of fibers wrapped around the connective tissue; and each has many bundles grouped together to make the muscle as we know it. All muscles have little nerve endings in their cells which cause them to contract. And, unless paralysis is present, muscles enable all individuals to move from place to place, feed themselves, etc. Now, why is it that these movements are about the full extent of some individuals' muscular abilities, while nearly unbelievable feats of strength are within the realm of accomplishment of other individuals?

The secret of the great strength of the athletes and "strong men" is "energy," "nerve force," "vitality," and "virility."

Energy! But from what is energy derived? And why aren't we all "energetic?" We know that many people eat enough to make them greater in strength, if the quantity of food consumed is any measure. We know many people who exercise so much that we would expect them to have uncommon muscle size, if exercise alone determined muscle size. We know that many other people lie around almost all of the twenty-four hours of every day; these people should have inherent strength and energy, if rest makes these qualities.

You know, perhaps, of some individuals who have great vitality, and yet are not physically powerful nor are their muscles particularly pleasing in contour.

One must conclude that something must be necessary in order to have the combination of great energy, large muscles, and enormous strength. What is it?

It isn't any one factor. It is a combination of factors that produce these desirable qualities. Let us now discuss a few of the most prominent factors.

First of all, there must be an inherently great vitality. We cannot add to vitality, but we can live in a way that would allow what vitality we have to manifest itself. Most of us are born with plenty of it, if not a superabundance. The reason we do not show much of it is because we have not called upon it, or have lived in such a way as to weaken it. Like energy, if no demands are made upon vitality it apparently diminishes; use it, and it will seem to grow. Yet it does not! We merely awaken it and begin to tap the underlying reservoirs. There are, conversely, many ways in which we can weaken vitality.

As for muscle strength, an important factor in its development is food — but this does not mean larger quantities of food. More food is required by the man who is developing or who is strenuously using his muscles than is required by the man who has small muscles and who gets little or no exercise. The required increase, however, in quantity of food is not nearly so great as many think necessary, and as many do, indeed, consume. A good balance between all the various classes of foods is necessary, with somewhat more starches and sugars, as well as fats. These are the foods that provide the specific fuel which muscles need for activity; and for best results, they should be as nearly close to natural as possible.

In order to build muscle size, there should be a slight increase in protein. It should be noted, however, that the increase in muscle size is, to a considerable extent, an increase in the thickness of the individual fibers, and not so much an increase in new cells.

Another factor is *use* of the muscle. In the human body nothing grows after maturity without use. The effect of stimuli upon muscle tissue is to cause it to do the one thing that it is designed to do — and that is to contract. Repeated transmission of stimuli to contract causes an increased capacity for contraction, or — in other words — an increased "irritability" which makes it possible for the muscle to contract more readily, more completely, and more powerfully. At the same time, such repeated sending of impulses increases the irritability of the nerves so that they send impulses more readily, and impulses that are more positive, more powerful. Where the stimuli are more powerful and the responses more energetic, the result is bound to be an increase in work capacity of the muscles — and an increase in size, up to a certain point.

What governs this "certain point" may be several factors. One, of course, is heredity and individual limitations. A son of small parents who himself is

small cannot possibly develop the bulk of muscle and the gigantic strength possible to the son of large parents who is himself a mammoth individual. If other factors are favorable, however, the smaller man can develop much larger muscles and far greater strength than where these other factors are unfavorable.

One of these other factors is "type of muscle." The two extremes of muscle type are the long, rangy type, and the short, bulky type. There is considerable difference in the muscle cells of these two types. In the former, the muscles are long and narrow, and the individual fibers long and slender. In the latter, the muscles are short and broad, and the fibers short and thick. They are also more compact or capable of being developed into more compactness. It is impossible for the man of slender build of a certain height to develop the same prominence of muscles as a broader man of the same height and development. Nor can he develop the same strength. Nevertheless, he can develop huge muscles and terrific strength if he applies himself to exercise properly and diligently.

It is time, now, to discuss a most important factor in the development of great muscles, and also in the development of energy and strength. That factor is sex health, or "virility." Virility alters the nature of the muscles and their response to stimuli. The muscles of the virile man are "close knit," and more compact; their fibers more closely bunched, less stringy; their connective tissue stronger. The nuclei (what well might be called the heart of the muscle cells) are more numerous, giving greater centers for reception of stimuli. The individual muscle fibers and the entire muscle are capable of greater degrees of contraction. The granules that serve as food are present in greater abundance, thus insuring better nutrition of the cells. The blood keeps in better circulation through the muscles, thus cleansing them more frequently of waste matter, and, at the same time, providing ample supplies of nutrition and fuel at more frequent — and thus more convenient — intervals. The nerves are better nourished, have more "irritability," and so send stronger impulses to the muscles.

These favorable conditions, you readily will appreciate, make it possible for the virile man to develop better muscles, larger muscles, stronger muscles — and within a shorter time. Men of all sizes and builds may be virile, so that it is impossible to select a particular type of individual in regard to external appearance, that might be called the virile type. It is more a matter of tone, alertness, and compactness, and of the difference between relaxed condition and contracted condition. Hardness is no indication except when contracted. But given two men who have exercised equally, one of superb virility and the other of lesser virility, the muscles of the former will have a far better contour, far greater strength, far

more endurance.

Many youths and men become discouraged because they cannot develop muscles as large and strong as those of others with their build, or perhaps even of men with a smaller build than theirs. They work faithfully, spend perhaps more time than the others, and yet they develop painfully slowly, or sometimes fairly rapidly up to a certain point, and then can go no further — having stopped far below their hopes and anticipations. Many want to know what the reason is for this; they think there is something wrong with their system of exercise.

Well, there may be a need to change their exercise routine. Many of them, for example, exercise too much and not in a scientific manner. But with many of them it is out of the question to develop the same largeness of muscle, strength of muscle, and the same capacity for energy until or unless they can in some way increase their virility. Some can do this, others cannot — at least not sufficiently to allow them to bring about the progress in development they desire. These will have to be content with a somewhat lesser degree of muscle quality than they desire. And yet there are many of these less virile types who, by persistent effort along the right lines, have produced development of the sort to give them ample reason to have a wholesome pride in their bodies.

The effect of virility upon the muscles, and upon energy, is not so much that waste matter is cleared out for better action of the muscles, though doubtless there is this effect; it is, rather, that greater virility is effective in providing — through internal secretion and its effect upon every function of the body — greater stability of nerves, better fiber of muscle, more potent food for nutrition and contraction, greater resistance to fatigue, and more rapid and complete recuperation.

I believe there is something else in men that governs their superiority in physical endeavors. It is the amount of energy which cannot be measured; it is the "backbone" and grit, which cannot be estimated until after being put to the test. It is the ability of the various tissues of the body to respond to unusual demands — and is an ability which cannot be predicted except by elaborate tests. I furthermore fully believe that one of the chief factors responsible for this ability is the unusual type of energy, response and chemical processes, and the greater wealth of energy reserves that are created by internal secretion of the sex glands. The quantity of this secretion cannot be measured, nor its quality estimated. The physical type of the individual in itself will not be sufficient to judge a man in this respect, especially since most of them would be in an undeveloped, untrained condition. The man himself will be totally unaware of the superior or inferior quality of this secretion, as well as the energy and stamina it creates, until he is put to the test.

So it is, also, with the man who is endeavoring to develop muscle bulk and specific muscle power. He may have no knowledge of a deficiency or inferiority of internal sex secretion until he fails to develop his muscles and improve his strength by systems of exercise that should, by all the rules of exercise, bring about marked improvement. Additionally, after failing he may not know why he failed, for there are few who can tell him. It may be that all he will be required to do in order to make his body more responsive to his efforts will be to conserve and increase his sex energy.

Fatigue and exhaustion are interesting subjects. Some consider these as different degrees of the same condition — exhaustion being a later stage of fatigue, for example. I believe there is a difference. My opinion is that fatigue is due to the development of waste products at a more rapid rate than they can be gotten rid of, thus producing a poisoning of the nerves and muscles and a reduction of their irritability, or ability to transmit stimuli and respond to them. This, to me, is not the same as exhaustion. As I see it, exhaustion is due only in part to the "drugging" by fatigue poisons and wastes, being mainly due to the consumption of the stored and immediately available nourishment or fuel.

The conduction of impulses and the response to stimuli by contracting are dependent upon some sort of physical, chemical, or electrical process not yet totally understood. It is understood, however, that they depend largely upon the condition of the body's metabolism — including reception of fuel; alteration of this fuel for actual use or storage for later use; repair; and passing out of waste matter. And I believe the gonad secretion serves sufficiently as a stimulant of some of these processes and as a stabilizer of others — the result being a great overall influence. That is, it stimulates naturally the metabolism plus the nerve and muscle conductivity and irritability for special needs; and at the same time, stabilizes these latter responses and the actual response and expenditure of energy of fuel. Thus the gonad secretion has much to do with fatigue and exhaustion: the greater the quantity and the better the qualities of these secretions, the greater the resistance to fatigue and exhaustion symptoms. The less the quantity, the poorer the quality of these secretions, then the farther from normal and the greater susceptibility to fatigue and exhaustion. The degree of exhaustion experienced is also greater in degree and more general when the gonad secretions are inadequate. The recovery of strength and energy also is impaired when secretions are below par.

The nerves during life are constantly sending impulses to the muscles, which keep them in a slight state of tension, called *muscle tonus*. This state of tone varies greatly in different individuals. It is this that keeps the muscles in condition for definite response to conscious stimuli upon a fraction of a

second's notice. Without it the muscles would be lifeless during rest, could be aroused but slowly, and their response by contraction would be slight compared to that of muscles with "tonus."

This constant sending of impulses keeps not only the muscles in better tone and responsiveness, but the nerves also. Many things, of course, make it possible for the nerves to continue this sending of toning impulses; but I am convinced that the gonad secretion has much to do with it. Anyone who is fully virile has a better muscle tone — this partial readiness for response on demand — that makes it possible for the muscles to develop more rapidly during developmental exercises. In other words, it is the *tone* that indicates the ability of the muscles to develop, both in strength and size.

Hence, in order for one to develop muscles such as he desires, it is necessary for him to have gonad secretions sufficient in amount and quality to keep the nerves and muscles in proper condition for response and development and in proper tone when at rest.



Nutrition and Virility



This photo of Bill taken in 1956 set the new trend in body building for massive size plus proportionate shape.

It is now time to get down to specifics. Potency, in many instances, may be weakened by nutritional deficiencies. Virility is also dependent on numerous other factors, such as exercise, physical health, adequate amount of sleep, mental attitude, and ability to relax. Physical and mental health go hand in hand to produce an individual who can function in a normal or above-normal manner.

The advance of biological medicine has had a stimulating effect on progressive research. Doctors are beginning to realize that most of man's ills are the result of prolonged abuse of elementary health rules. The role of nutrition in preventative and therapeutic medicine has also become increasingly evident. Biochemical imbalance in the tissues, derangement in the metabolic processes due to faulty dietary patterns; these, to mention only two, are recognized as major factors causing chronic and degenerative diseases in civilized man.

Nutritional imbalances and deficiencies may affect every aspect of man's physical and mental well-being. The normal function of every organ and gland is dependent on adequate and proper nutrition. Man's sexual system and its functions are no exception to this rule. Doctors have become increasingly aware that the quality of nutrition determines the state of sexual health. A person's sexual desire and capabilities, as well as the healthy functioning of his reproductive system, are significantly dependent on the nutritional quality of the food he eats.

Just why and how does nutrition play so important a role in your sex life? How does it affect your sexual capacity, your virility, and your fertility?

Your sexual life is directed by your glandular system. The glands directly responsible for sexual activities are the so-called endocrine glands. Most of your body's functions are controlled by them. The hormones produced by the endocrine and sex glands hold the secret of your sexual virility.

Testosterone, the male sex hormone, plays an equally important part in man's sexual life and his general health. Those hormones and other secretions of the endocrine glands are the *spark plugs* that provide stimulus and drive for the body as well as the mind. The healthy functioning of the endocrine glands and sufficient production of hormones are indispensable to the healthy functioning of the sex organs. The quality of your nutrition influences the synthesis, the quality, and the release of the endocrine hormones, which, in turn, directly or indirectly influence virility and sexual capacity.

Sex glands need specific nutrients — minerals, vitamins, and natural chemicals — in order to function properly.

Roughly speaking, your glands can be divided into two groups. One group pours its secretions through a system of ducts to various parts of the body to enable them to perform their vital functions. These are *exocrine* glands, which produce external secre-

tions. The other group, the *endocrine* glands, is without discharge tubes or ducts. The substances secreted by the endocrine glands are poured directly into the blood; they do not reach either external or internal surfaces of the body and are, therefore, glands of internal secretion.

The endocrine glands are the *pituitary, pineal, adrenals, thyroids, parathyroids, thymus, pancreas, ovaries, and testes*. These glands secrete chemical substances known as *hormones*. Hormones are released directly into the bloodstream, and are carried to different parts of your body to regulate, stimulate, or trigger its functions.

Hormones also control, influence, and determine your entire personality and your mental make-up. Your glands determine whether you are emotionally stable or disoriented, energetic or lethargic, agreeable or choleric, cold or temperamental. They also determine your degree of virility.

Your endocrine glandular system controls not only the way you feel, but also the way you look. Premature signs of aging, early appearance of wrinkled complexion, disappearing lips, loss and graying of hair, double chin, bulging waistline, loss of muscle tone, flabby skin — all these are signs of inadequately functioning endocrine glands.

The *pituitary* gland is called the *master gland* of the endocrine system. It manufactures ten or more specialized hormones with more complex and vital functions than those of the other endocrine hormones. Pituitary hormones control the functions of all other endocrine glands, including the sex glands. The pituitary regulates the growth of the tissues and the bones.

The pituitary secretes hormones which regulate the metabolism of water and salts, blood pressure, and the build-up of protoplasm. Pituitary hormones control the storage and distribution of fat and the building of sound muscle tissue.

The pituitary gland has both a direct and an indirect influence on the sexual reproductive organs. Research has shown that the pituitary produces a hormone which acts directly on the sex organs and the secondary sexual characteristics. This substance, called *pituitary gonadotrophic hormone*, influences the germinal glands, stimulating them into production. If the pituitary gland fails, sexual development will be retarded and sexual maturity never attained. The testes produce spermatozoa and male sex hormones under the direct stimulus of the pituitary gland.

The *thyroid gland* is important in governing the pace of your physical and mental life. The thyroid produces hormones which stimulate the oxygen consumption of all the body tissues, regulate growth, and control metabolism. All these functions are vitally important to muscle growth.

The *adrenal glands* produce several hormones with a variety of functions. *Adrenalin*, "the hormone of survival," is produced by the medulla and poured

into the bloodstream in time of emotional excitement. It accelerates heart action and increases the sugar content of the blood. Adrenalin can slow or stop your digestion as well.

Aldosterone is an adrenal cortex hormone, and is vitally involved with the metabolizing and utilization of minerals, especially of the minerals sodium, potassium, and chlorine. It also helps your body to utilize fats, sugars, and proteins. Aldosterone is also related to the action of sex hormones and has a profound effect on your sexual activity.

The *parathyroids* secrete a hormone known as *parathormone*, whose main known function is the regulation of the calcium and phosphorous supply to the blood and tissues. It might be added here that calcium is important to practically all organs, bones, and tissues of the body. Phosphorous is an equally vital mineral. It is called the colleague of calcium, because calcium cannot do its job without a properly balanced supply of phosphorous in the bloodstream.

The *pancreas* secretes *pancreatic juice*, which contains hormones and enzymes for the digestion and assimilation of proteins, starches and fats.

The *Islands of Langerham* regulates the amount of sugar in the blood. Glucose, or blood sugar, is the energy food for all body cells.

The *thymus* plays an essential role in early normal growth. It is also involved in the body's defense against infection.

The *testicles* not only produce the generative cells, or *sperm*, but also manufacture and secrete the male sex hormone, *testosterone*, which profoundly affects a man's sex organs, his secondary sexual characteristics, his health, his typical masculine muscular development, and even his state of mind.

The work of the male sex hormone is profound in its effect. This has been proven conversely by studies of the effect of castration, or the surgical removal of the testes. The operation is frequently performed on male animals, usually to change an intractable beast into a docile one which can be used for domestic work, as in the case of oxen and horses. In other cases, castration is used to facilitate fattening of an animal.

The most striking illustration of the effects of castration, however, can be seen in human beings. Castration was known in ancient times in the Middle East and Europe. Eunuchs — castrated men — were employed as harem guards. In the more recent past, they were used as singers in all-male soprano choirs. When castrated before puberty, these men developed no hair growth on their faces or bodies. Their torsos were effeminate and fat, their genital organs infantile, and their voices high-pitched. They were docile and lazy. Naturally, they had no reproductive capabilities, nor did they have an virility.

In the normal human body, the endocrine glands secrete both androgenic and estrogenic hormones, which stimulate male and female characteristics.

The liver regulates the balance between the two.

The High Protein Diet Myth and Virility

The high protein myth is so permanently engraved in our thinking that I hesitate to suggest it may be erroneous. Yet due to my desire to help the sincere seeker of lasting health and physical power, I am compelled to try.

It is not difficult to understand how the high protein myth originated. Proteins are important components of our daily nutrition. Your body is built largely of proteins. Your muscles, hair, skin, vital organs, and glands, even your hormones are made up of proteins. Twenty percent or more of the cellular composition in your body is protein. Since your body is constantly renewing and repairing itself, you need lots of protein in your diet for the building of new cells.

And that leads us to the question, "Just how much is 'lots'?" Many experts suggest that you need from seventy to two hundred and fifty grams or more of protein each day. Scientists around the world are beginning to suspect a mistake in their original estimation of our protein needs. More and more evidence is turning up to show that enough protein is good, but too much is bad. Sugar is essential for our health, but too much sugar in the diet has been established as a cause for many health disorders. We certainly need fats, but too much fat in the diet will cause a legion of troubles. Even too much of certain vitamins or minerals may cause ill health. And so it is also with proteins, especially cooked animal proteins, which may cause disorders in the metabolism and a biochemical imbalance in the tissues. These conditions may lead to the most common degenerative diseases, including arthritis, arteriosclerosis, and heart disease.

Studies by well-known nutritional authorities show that our actual requirement for protein is somewhere between thirty and forty grams per day. One of the most reliable sources on matters of nutrition today is The International Society for Research on Nutrition and Vital Substances, the scientific council which is comprised of four hundred doctors of medicine, biochemistry, nutrition, and natural science. This foremost scientific authority has stated that our "classical" protein requirement tables need an overhaul. "Meat, fish, and eggs supplement a basic diet, but a daily intake of these foods is not necessary," says The International Society for Research on Nutrition and Vital Substances.

The outdated calculations with regard to human protein needs were based on nineteenth century research by Justin Von Liebig, Karl von Voit, and Max Lubner, who believed that man's daily protein requirement was one hundred twenty grams. Until today, many of the beliefs and opinions regarding protein requirements were based on these men's

faulty calculations. As Dr. H. B. Lewis has pointed out, it is, indeed, "very dangerous when great men make mistakes." Although the official tables of protein requirements have been showing lower listings for the past several decades, and are now set at about one-half gram per pound of body weight per day, many authorities continue to cling to the old, outdated, "more, more, and more protein" idea, with a heavy emphasis on animal proteins, mainly from red meats.

In accord with the latest research, and taking into consideration the great variation in protein need of each individual, plus the extra demands under conditions of stress, a general conclusion would be that fifty to sixty grams of protein per day — with seventy-five to eighty percent derived from vegetable sources — is sufficient for optimum health. Proteins in excess of this amount are not needed by the body and are only burned as fuel for energy, or stored as fat. As fuel, proteins are inferior to natural carbohydrates and fats.

You do not need meat for protein. About half of the world population does not eat meat for religious or other reasons. There are also large groups of people in the United States, such as Seventh Day Adventists, who do not eat meat at all — and display much better health than the average American, with forty percent less heart disease, one thousand percent less lung cancer, and one hundred percent lower total mortality rate? Where do they obtain their proteins? The answer is simple: proteins are a part of virtually every natural food available to man. Every plant, every seed, and every fruit contains some protein. It is virtually impossible not to obtain enough protein on any diet of natural foods.

The long-held belief that meat proteins are superior to vegetable proteins has been disproven. Recent research has demonstrated that animal proteins in any amounts have a detrimental effect on health, and that vegetable proteins, formerly believed to be incomplete or inferior to animal proteins, are actually biologically as good or better than animal proteins. Also, it has been scientifically demonstrated that good health can be sustained on a lesser amount of raw vegetable protein than cooked animal protein. Potatoes are, for example, a good source of complete proteins which are biologically comparable to the proteins in eggs.

You also do not necessarily need meat protein for strength. Dr. Irving Fisher conducted endurance tests on vegetarians and meat-eaters which clearly showed the superior stamina of vegetarians. Then he lowered the content of protein in the diet of persons under the study, and noticed that a twenty percent reduction in protein increased their endurance thirty-three percent. Dr. L. Chittenden of Yale University made similar studies and demonstrated that muscle strength and endurance reaches its peak with about one third of the usual protein intake. His explanation of this

phenomenon is that the metabolism of animal proteins results in a high content of uric acid, urea, and purines in the blood, and that these have a toxic effect on muscles and nerves.

The studies that have been mentioned seem to indicate that one does not need lots of proteins every day. The fact that a person can live on a water or juice fast for months proves that you don't have to eat proteins every day, although your body needs them each day. The proteins in your body are in a so-called dynamic state; they are constantly being decomposed and resynthesized. They are stored in blood plasma and used by the system as needed. During fasting, the inferior and diseased tissues are converted into useful amino acids and stored in the liver or blood for immediate use. Consequently, you don't need to eat proteins every day in order to keep your body functioning. Feel confident in taking short, health-building fasts occasionally, or in having a fruit-only day now and then, without wondering where your body will derive its supply of required proteins.

Proteins are, of course, very essential nutrients for the peak of virility, make no mistake about that. Prolonged protein deficiency in the diet will definitely result in diminished interest in one's physical powers. But for these purposes, milk and egg proteins have as much to recommend them as do meat proteins. Milk and egg proteins are much more easily digested and assimilated, and they do not have the adverse properties of meat. The occasional use of meat may be regarded as inducing virile desire and potency, but prolonged and heavy consumption of animal meat will eventually have a detrimental effect on virility, and may be a contributing factor in the American male's increasing loss of potency. The American male is the biggest meat eater in the world.

In addition to the less desirable properties of meat (possibly excluding fish) for health generally and for virility in particular, meat contains many toxic drugs used in animal feeding to speed the growth and fattening process. Residues of DDT and other chlorinated hydro-carbons, as well as such organophosphate pesticides as parathion, are found in almost all meat on the market today. Furthermore, meat is loaded with antibiotics and other drugs left in the meat when the animal is slaughtered. And they all find their way to your dinner table!

In addition, most meats sold in America today, including poultry and beef, have been fed rations containing diethylstilbestrol, a synthetic hormone. If you eat lots of meat each day, you can be reasonably sure that you are receiving heavy daily doses of this hormone each day, since much of it remains in the carcass after the animal has been killed. The authoritative drug manual, *March Index*, lists more than a dozen serious disorders which large doses of stilbestrol can cause in humans, including loss of virility.

Now let's examine the functions of enzymes in your virility. Enzymes are vital catalysts, absolutely essential for your health. Without enzymes, your body cannot properly digest and assimilate nourishment. Although a certain amount of enzymes are manufactured within your body, food enzymes are needed for effective digestion. Enzymes are also needed for the healthy function of practically all organs of your body. Without them, you would starve to death, even if you ate the most nutritious foods in the world, because your body would not be able to utilize the nutrients you gave it. As important as vitamins, minerals and proteins are, they are powerless without enzymes. Enzymes transform food substances into living cells which replenish the cells of your vital organs and glands. Your physical and mental energy, your resistance to disease and stress, all depend on the magic work of enzymes.

Enzymes are wonder-workers for your health. They increase your resistance to disease. Their chemical action on glandular functions determines the amounts of hormones produced and released by your glands.

Only living foods, in a natural, unprocessed state, contain all the enzymes needed for natural body functions. Enzymes are totally destroyed in cooking, and largely destroyed by various methods of processing. Therefore, to benefit from the powerful effect which enzymes can have on your health and virility, eat as many raw foods as possible. All fruits and vegetables should be eaten raw. Nuts, milk, honey, and seeds such as sunflower seeds, should be eaten raw — not pasteurized, heated, or toasted. Practically all foods in their raw state are easier to digest than cooked foods.

A certain decline in male sexual desires and ability is normal as the years advance. A man's sex glands reach their peak at twenty or twenty-two. Hormone and sperm production diminishes as a man grows older. Under favorable conditions, a life-long sexuality is man's birthright. Although a man in his sixties cannot be as active sexually or has the virility he had in his twenties, at no physiological age does a man's sexual ability necessarily halt.

In light of this information, one has good reason to wonder why so many men of recent generations seem less virile than their ancestors? The answer could be that they are insufficiently healthy. Lack of virility is a symptom common to many forms of ill health. Sexuality is the result of the body having available to it extra energy. When all available energy is needed to fight for life, none is left for sex.

Excessive use of drugs is another common reason for inferior virility. Many common medicines interfere with sexual response, especially sedatives and tranquilizers. Any drug which depresses the central nervous system can cause loss of virility in men.

Drinking and "getting smashed" are also definitely detrimental to virility.

It should not be surprising that obesity is one of the worst enemies of virility, since obesity is almost always caused by overeating. Why do people overeat? Largely because they eat devitalized foods which have been robbed of vital nutrients. When we eat refined, devitalized foods, nutrients are missing which are needed to convert food into energy. Thus, although we eat a lot, we still feel hungry and eat more. If calories are not converted into energy, they are stored in the body as fat.

Stilbestrol, a synthetic female hormone found in seventy-five percent of cattle used for human consumption, has a disastrous effect on fertility and sexual virility. Even tiny amounts of this powerful drug have caused men to develop female characteristics.

Stilbestrol is not the only harmful substance found in meat. A goodly dose of antibiotics, arsenic compounds, plus tranquilizers and toxic insecticides are continually being pumped into the animal before it reaches your table. It is easy to realize that the meat of today is not as it was twenty years ago.

We might also ask at this time, "How do alcohol and virility mix?" Basically, alcohol is a sedative which inhibits and dampens physical and mental reactions. It has a two-fold effect. In very small amounts, it stimulates. Alcohol is a pure carbohydrate and is absorbed quickly into the bloodstream. It induces a feeling of well-being by raising the blood sugar level. It also has a sedating, anaesthetic effect because of its paralyzing and inhibiting action on nerve activity and on the brain.

For optimum virility, try to avoid undue emotional stress and worries; have a happy, positive attitude, and check with your doctor for possible pathological reasons for ill health. Then be sure that you correct any unfavorable conditions which are present. See to it, also, that your diet is health- and virility-building — not virility-destroying. How do you accomplish this? I will tell you.

The following foods are rich in nutrients needed for the functioning of the all-important pituitary gland: eggs, raw milk, cheese, fresh whole grain products, raw nuts and seeds, fresh wheat germ, citrus fruits and green vegetables, brewer's yeast, and cold-pressed unprocessed vegetable oils. Naturally, eating foods which aid the function of your pituitary gland will also benefit your sexual glands and thus increase your virility.

It is known that sufficient amounts of Vitamin A and E are necessary for the proper functioning of the sex glands and for sufficient hormone production. The International Congress on Vitamin E indicated that a lack of Vitamin E can cause degeneration of the testicles and diminished hormone production. Vitamin E is an antioxidant, and therefore protects sex hormones from destruction by oxidation.

Several of the B vitamins are essential for hormone production as well. Vitamin B1, or thiamine, is vital

to the pituitary, which in turn stimulates the sex glands. A deficiency in Vitamin B₆ has been known to cause impotence in men, and a deficiency in another B vitamin, chlorine, has been shown to disrupt the proper balance between male and female sex hormones in the system. In the normal human body, the endocrine gland secretes both androgenic and estrogenic hormones which stimulate male and female characteristics. The liver regulates the balance between the two. A deficiency of chlorine, thiamine, and riboflavin (all B vitamins) may prevent the liver from keeping the proper hormonal balance.

Protein deficiencies can cause sexual senility. It has been observed that men in concentration camps and famine-stricken areas lose all interest in sex. If nutritional deficiencies can cause loss of virility and even impotence, why do such sexual disorders flourish in the United States, which is reputedly the best-fed nation in the world? The answer is simple. Although abundant food is available, many Americans — almost half, according to reports by the U.S. Department of Agriculture — suffer from nutritional deficiencies. This is partly due to the devitalized and refined state of American foods, which reach the consumer with many of their vital nutrients destroyed. Americans are also guilty of a widespread ignorance as to which foods they should eat for optimum nutrition. Men living in Hungary and Bulgaria, two of the "healthiest" nations in the world, live on diets of wholesome natural foods, low in animal fats and high in fruits, vegetables, whole grains, honey, milk and milk products — obviously diets not comparable to the typical American food intake.

Raw milk (and particularly goat's milk) contains one of the highest grades of protein known to man. It is more easily digested, and more effectively utilized, than any other form of protein. Complete proteins of the highest possible quality are essential for the healthy function of the endocrine and sex glands.

Egg yolks contain huge amounts of lecithin and vitamins — all vital for the health of the reproductive system. The whites are a complete protein.

Honey is a rich source of aspartic acid. Furthermore, honey sugars are in a predigested form which can be quickly assimilated by the body. Easily obtainable sugar is important for the manufacture of male seminal fluid.

Raw nuts and pumpkin seeds are rich sources of zinc, which has been clinically demonstrated to affect the health of the prostate and hormone-producing sex glands.

Many of the sex-favoring substances used by ancient Indian, Chinese, Arabian, Jewish, Roman, and Greek cultures are potent health-giving foods which are also recognized by modern nutritionists as being generally beneficial to health. Such foods as honey, milk, eggs, sesame seeds, nuts, garlic, onions, and seaweed are gold mines of nutrients needed for

increased vigor, which is essential for sustained sexual virility.

If animal proteins are desired, then fish, shellfish, and eggs are preferable to meat. Eggs are a time-tested virility food, especially egg yolks. Egg yolks are best eaten raw, but egg whites should be cooked.

Proteins are essential in a high-virility diet, but the best animal sources of protein for this purpose are milk and eggs. Casein milk protein is the highest grade of protein available to man. It is more completely and easily digested and absorbed than any other form of protein. The highest grade of protein is required by the pituitary gland in order to produce the hypophyseal hormone which stimulates the activity of the sex glands. For optimum biological value, milk should be unpasteurized. In the process of destroying some possible pathogenic bacteria, pasteurization also destroys some vitamins and makes some of the minerals and proteins biologically less valuable and less assimilable. Natural cheese (not processed) such as Swiss, longhorn, Danish, and cheddar, are also good sources of complete milk protein. One or two glasses of raw milk, a serving of raw cottage cheese, and a few slices of good, natural cheese on whole grain bread will provide you with a generous amount of all the proteins you need in one day for optimum health and virility. Add to this the proteins from fresh vegetables, potatoes, fruit, and other foods, and you can stop worrying about getting enough proteins, even if you eliminate meat from your diet completely!

Here are some additional valuable sources of protein: whole grains, raw nuts and seeds, especially sesame seeds, almonds, peanuts, and sunflower seeds; wheat germ; and brewer's yeast or food yeast. All of these seeds should be eaten fresh and raw. Use only whole grain breads and cereals, since these contain more proteins. Use wheat germ and brewer's yeast as food supplements. They are not only excellent sources of proteins, but also of vitamins, minerals, and trace elements.

Finally, almost everything you eat — provided it is not processed, refined, or adulterated in some other way — contains valuable protein. This is especially true of such vegetables as potatoes, yams, and the green leafy varieties, all of which contain complete, top-grade proteins. Potatoes should be boiled in their jackets or baked.

Natural foods are those grown without help of toxic chemicals or drugs, and from which no inherent nutritive values have been removed by processing, heating, or refining.

Here are a few examples of the foods you should be striving to eat: 1) Wheat, grown in fertile soil rich in humus, fertilized with manure and vegetable residues, and consumed in the form of whole grain products, is a natural food. Such natural whole grain foods are rich in proteins, vitamins, minerals, and enzymes. Such foods will not only supply you with

potent nutrition, but also with vital enzymes which help your body digest and utilize all nutritive factors. The protein content of today's wheat is twenty-five to thirty percent lower than it was a few generations back, before the chemical take-over of farming methods. 2) Eggs are another case in point. Natural fertile eggs — laid by hens living in a natural outdoor environment, enjoying fresh air, sunshine, and roosters, and eating their natural foods in the form of insects, worms, grass and seeds — are full of nutritive value. But today's eggs, produced in egg "factories" by chickens who never see the sun, or green grass, or a rooster, and who are fed only synthetic, medicated mash, are not natural eggs. Such eggs are sterile; they will not produce chickens. Their chemical composition is altered and imbalanced, and their vitamin content is lower. The total nutritive value of such eggs is much lower than that of natural eggs.

Natural foods grown under natural conditions, unprocessed and unrefined, contain more proteins, more vitamins, and particularly more vital enzymes than denatured foods. This is so important when striving for the highest degree of virility.

More than ninety percent of all foods we eat today have been tampered with in one way or another. Many of the important nutrients present in natural whole foods have been removed or destroyed. White sugar, white bread, processed cereals, canned foods and processed oils are all devitalized and denatured. The consumption of fresh fruits and vegetables per capita in the United States has declined one third since 1930. At the same time, we consume twenty-five billion dollars worth of processed cereals, baked goods, soft drinks, macaroni, confectionery and other non-nutritive, empty calories which can produce nothing but disease and diminished virility.

It is a scientific fact that the naturalness of the foods you eat has a direct bearing on your health and vitality. An extensive study of eating habits as related to the health of almost all the peoples of the world has revealed that where people live on natural, unprocessed, fresh foods grown in the proper environment, those people have no tooth decay or disease. They are strong, virile, and happy. They enjoy long lives. Conversely, where people eat denatured, cooked, processed foods, especially white sugar and white flour, those people are subject to tooth decay and various diseases peculiar to civilized man.

Here are five basic rules of nutrition for optimum health:

1) Eat foods that are as natural as you can possibly obtain them. Only whole, unrefined, unadulterated foods can produce optimum health.

2) Eat "living," or raw foods. If cooking is required, cook as little as possible at low heat to preserve enzymes and other nutrients. Not less than half, and, better yet, two-thirds of all you eat should be

raw, if you want to attain the peak of health and virility.

3) Eat food that is as "poison-free" as possible. Chemicals in your food, water, and air are definitely harming your health and the health of your reproductive organs. Because they do so, I refer to them as "poisons."

4) Follow a high-in-natural-carbohydrates, low-in-animal-protein diet. As I have stated previously, proteins are essential for top-notch health and virility; but the importance of animal meat in a diet is definitely overemphasized by most American authorities. The proteins from vegetables, eggs, and milk are as valuable as meat proteins, and come to you without the adverse effects on health attributable to meat.

The Scientific Council of the International Society for Research on Nutrition and Vital Substances, after a seven-year study of all available scientific data on nutrition, recommends the following dietary program:

"A complete, well-balanced diet with the greatest potential of building optimum health and preventing diseases of old age should have the following characteristics:

- Natural, whole, unadulterated foods, free from harmful additives
- An adequate supply of vital substances (vitamins, proteins, minerals, enzymes, essential fatty acids, trace elements, etc.)
- A moderate supply of caloric and energy-producing foods of the carbohydrate category
- A lacto-vegetarian diet of fresh foods (a diet based on whole grain products, vegetables, eggs, fruits, seeds, and nuts, and milk and milk products).

This basic diet should be enriched by such natural, unprocessed, and untreated foods as fruit juices, nuts, flaxseed, whole grain cereals, soured milk, yogurt, kefir, all available fresh berries and fruits, honey, cold-pressed vegetable oils and edible yeast (brewer's yeast).

5) Finally, it's not what you eat, but what you assimilate that counts!

You may eat the most nourishing food in the world, but if your digestive system is not able to utilize this food, it won't do you any good.

For proper digestion, food must be broken down into small molecules which can be assimilated by the bloodstream and transformed into living cells by the action of enzymes. Faulty digestion and poor assimilation of food can be brought about in the following way:

1) *Overeating!* One common characteristic of people who live one hundred years or more in good health and vitality is that, throughout their lives, they were moderate eaters.

2) *Hurried eating.* Slow eating and good mastication are essential for good digestion and assimilation of food. Good chewing starts the digestion of

food in your mouth, increases its assimilation in the intestinal tract, and makes you feel satisfied with a lesser amount of food.

3) *Lack of relaxation after eating.* You should always eat in a relaxed atmosphere and enjoy what you are eating. Only the food you have enjoyed can do you any good. It is also important that you take a short rest after each meal. The digestion of food requires a great deal of blood. To plunge into heavy mental or physical work right after a big meal is a health-destroying practice. It will lead to poor digestion and assimilation, putrefaction in the intestinal tract, and possible gastric disorders.

All emphasis on virility to the contrary, this program is not geared to being a quick, instant stimulus to your amatory powers. It is a long-term virility program, aimed at building and strengthening your total general health and preventing premature aging — physically and mentally. This entire program will bring you optimum health. And optimum health is your best guarantee for a robust and happy life.

In conclusion, let me summarize by repeating that your virility is closely linked to your general health,

and that the condition of your health is inseparably tied to the quality of your nutrition. You have learned that a well-balanced diet of natural, unprocessed foods and certain food substances — vitamins, proteins, minerals, and trace elements — can enhance your virility and improve your physical capacity for added muscle size and strength.

The purpose of this book as a whole is to help you understand and improve yourself physically and mentally. Nutrition and physical fitness are not a panacea, or cure-all. Furthermore, nutrition and physical fitness do not compete with medical practice. Your own effort to improve your health does not mean you are guilty of foolhardy self-doctoring. On the contrary! By discarding poor living and eating habits, you are demonstrating an intelligent and responsible attitude towards your health. Building optimum or even general health through weight training and improved nutrition is not as easy as it may seem. Knowledge is of no use unless it is put into practice, which involves understanding, determination, and a thorough dedication to changing your health-destroying habits.



Bill Pearl, Ray Schaefer, and Jack Dillenger, all holders of the Mr. America/Mr. Universe titles, enjoy a spot of tea while attending a get-together in London, England.

Anabolic Steroids

There is probably no more of an argumentative subject in body building than *anabolic steroids*. While steroids have been used by the medical profession since the mid 40's in the treatment of the elderly and certain slow responding ailments, it has been since the late 50's that body builders have elected to use them in their search for greater strength and muscular development.

Anabolic steroids are synthetic derivatives of testosterone. The action is primarily anabolic (protein sparing). It promotes body tissue-building processes and reverses catabolic or tissue depleting processes. Nitrogen balance is improved with anabolic agents but only when there is sufficient intake of calories and protein.

Many body builders feel they cannot reach their full potential in strength, muscle mass, or compete in physique contests (regardless of the caliber of the contest) unless they take anabolic steroids. They seem to feel that the ingestion, or oral consumption, of steroids has become so commonplace that they too must get caught up in this mania to stay on a competitive basis. Misinformed newcomers to the sport of body building mistakenly believe that the champions build their great muscle size and symmetry with steroids and those "wonder drugs" can do the same for them. Don't you believe it!

It just does not happen at all for most body builders regardless of how long and hard they train and certainly not overnight. It takes years of hard work and dedication, plus special "God given" features to develop a championship physique. The average "Mr. America" winner has been training extensively six to ten years and he has many special qualities on top of that.

Steroids do not work the same on everyone. Many individuals report absolutely no progress in strength or muscle growth with steroids. It is a matter of individual metabolism. If you have a metabolic imbalance, all the steroids in the world will not make you improve your physique.

Because of my background in weight training, I am more aware of what goes on behind the scenes with the top echelon of body builders. I have also researched this subject and questioned many authorities and medical doctors who prescribe anabolic steroids. The following summation of their conclusions appears to the right:

1. Only advanced, competition-minded body builders should *even consider* taking steroids. You should reach your absolute limit in development before considering taking them. They are not produced to be used by a normal healthy person, certainly not by beginning or intermediate weight trainers, or any healthy person who is interested in prolonged physical well-being.

2. You should have a complete physical checkup, a metabolism test, a series of blood tests and prostate checkup before taking steroids.

3. Steroids will only produce results when used in conjunction with a good diet and a well devised training program. Sufficient rest and sleep are also imperative.

4. It takes approximately three weeks before the growth stimulating effect reaches its peak, and continues for about another three weeks. After six weeks, the effectiveness of steroids decreases markedly, even if the dosage is increased.

5. You can only take steroids twice a year for a period of six weeks each time and be readily safe from adverse side effects.

6. Steroids do seem to help increase your strength and you are able to train with heavier weights.

7. You should supplement your diet with Hi-Potency B-Complex, Vitamin C (1000-2000 mg), Vitamin E (800 I.U.), and a good complete protein supplement.

8. Excessive dosages or prolonged usage over six weeks can result in destruction of cells in the liver and kidney.

9. Damage to the prostate gland can occur in those susceptible to this disorder. If your prostate is weak, you should *not* use any type of anabolic steroids. The possibility of prostate cancer from steroid usage exists.

10. Steroids should never be used without the supervision and approval of a medical doctor.

From what you have read in the preceding chapters, I have shown you how you may increase the potency of all your hormones by proper eating and living habits. I personally feel a natural unprocessed diet, as I have suggested, will pay you a thousand times more dividends over your life span than the taking of an anabolic steroid, for the sake of increased strength or muscle growth.



The appearance of brute strength, massive size and determination are all vivid in this photo of Pearl.

Exercises for Championship Physiques

There must be guide lines to follow for anything that is to be done with near perfection. I have made weight training my career and I have taken a scientific approach to it since my early training days. I have kept accurate personal records of every workout, sets, repetitions, poundages used, and comments on my training progress since 1950. The exercises and remarks found in this guide are the results of these records.

I have been actively engaged in the health club profession since 1954. Fortunately for me, my enthusiasm for body building has lead several thousands of people to search me out for assistance in their training needs. I have personally made out in excess of sixty thousand training programs during this time.

I have probably helped more body builders become champions than any single person in the business. I have done this by trying to do for them as I would do for myself if I were in their shoes. The formula has worked extremely well.

Every exercise and suggestion listed in this guide has been used time and time again by me and anyone I have trained for a long period of time. All the results I have made, or anyone I have helped along the way, has used the same formula. If there are any such things as "secret exercises" for fast progress, they are listed in this guide. They must be because they have produced the most champions.

Listed below are general guide lines to follow for setting up and following different degrees of training programs.

BEGINNING WEIGHT TRAINING

1a. Consult your doctor before embarking on any new fitness program.

2a. Record your body weight and measurements for reference.

3a. If you suffer from any previous injuries, do not perform any exercise that puts undo strain, or causes pain, to the injuries.

4a. Determine in advance how many times per week and the length of time per workout you can afford to spend on a fitness program. With this information, devise a program that will fit into your schedule. Keep accurate records of your progress and stick with the program. Make it a habit.

5a. Always work within your own means. Try to avoid overdoing. At all times keep a positive attitude towards your training.

6a. Commence your exercise program with three midsection exercises that work the midsection

area, not just the upper or lower abdominal region. This not only works the midsection and internal organs, but acts as an excellent warm-up for the body. Select an exercise that primarily affects the chest muscles, one for the rib cage, an exercise for the shoulders, another for the upper back, the triceps, biceps, and finish with the legs. The reason for leaving legs last is to eliminate as much as possible any strain to the low back, which is affected by most leg exercises. The low back is probably the weakest link in the human body.

7a. Once you are able to complete the prescribed number of sets and repetitions with relative ease, increase the poundages. The last two repetitions of each exercise should be done with about 85% to 90% maximum effort. Do not work to exhaustion.

8a. It is more beneficial to add repetitions to your abdominal exercises than to add poundage. At no time is it necessary to do more than one hundred repetitions on any given midsection exercise. It would be far better to choose an additional exercise and work toward the one hundred mark with it.

9a. Follow each training program for approximately six weeks with consistency. Then reestablish yourself. Select new exercises for the seven major muscle groups and commence again. If you are not exercising on a steady basis, the time between changes can go as high as three months.

10a. Follow the eating habits outlined in the guide as closely as possible. If you feel you should reduce your body weight, become more aware of the "junk foods" in your diet and cut back. Also reduce your daily calorie intake to the amount required for the body weight desired. If you are interested in increasing body weight, follow the eating habits outlined in this guide. Consume four to six meals a day and increase your calorie intake for the desired weight. Try to use more dairy products in your diet. They are high in carbohydrates, fats and protein.

INTERMEDIATE WEIGHT TRAINING

1b. Everything listed above excluding item #6a.

2b. Select four exercises affecting the abdominal area, two exercises for chest, two for shoulders, two for back, two for triceps, one for biceps, two for thighs, and one for calves.

3b. Become aware of your physical weak points. Devise training programs that put more emphasis on these areas even if it means cutting back elsewhere.

4b. Concentrate on the individual muscle groups while exercising.

5b. Make an effort to eliminate bad health habits.

TYPICAL LIMITED WEIGHT TRAINING PROGRAM

EXERCISE	REPS	SETS	PAGE
Warm-Up	15-25	1	66
Sit-Up	15-50	1	81
Dumbbell Side Bend	15-50	each side	69
Alternated Leg Raise	15-50	each side	97
Medium Grip Barbell Bench Press	10-15	2-3	133
Straight Arm Dumbbell Pullover	10-15	2-3	150
Standing Military Press	10-15	2-3	187
Wide Grip Rear Lat Pull-Down	10-15	2-3	240
Standing Dumbbell Triceps Curl	10-15	2-3	291
Standing Medium Grip Barbell Curl	10-15	2-3	410
Heels Elevated Medium Stance Free Hand Squat	10-15	2-3	456

30 to 60 minutes per workout; two to three times per week.

TYPICAL INTERMEDIATE WEIGHT TRAINING PROGRAM

EXERCISE	REPS	SETS	PAGE
Warm-Up	15-25	1	66
Incline Sit-Up	50-100	1	81
Bend To Opposite Foot	25-50	each side	74
Leg Raise	50-100	1	96
Standing Barbell Twist	50-100	each-side	70
Incline Lateral	8-10	3-4	142
Bent Arm Lateral	8-10	3-4	142
Standing Side Lateral	8-10	3-4	188
Standing Palms In Alternated Dumbbell Press	8-10	3-4	169
Bent Over Dumbbell Rowing	8-10	3-4	246
Medium Grip Straight Arm Barbell Pullover	8-10	3-4	145
Standing Medium Grip Triceps Press Down On Lat Machine ..	8-10	3-4	323
Incline Dumbbell Curl	8-10	3-4	433
Incline Close Grip Barbell Triceps Curl	8-10	3-4	272
Thigh Extension On Leg Extension Machine	10-12	3-4	484
Heels Elevated Medium Stance Barbell Hack Squat	10-12	3-4	465
Standing Toe Raise On Wall Calf Machine	20	3-4	510

1 hour to 1 hour, 45 minutes per workout; three to four times per week.

TYPICAL ADVANCED WEIGHT TRAINING PROGRAM

M. W. F.

EXERCISE	REPS	SETS	PAGE
Compound Sit-Up	50-100	each side	82
Barbell Side Bend	100	each side	67
Incline Leg Pull-In	50-100	1	108
Stiff Legged Barbell Dead Lift	50-100	1	73
Heel High Sit-Up	50-100	1	77
Incline Lateral	6-8	4-5	142
Incline Dumbbell Held To The Front Side Lateral Raise	6-8	4-5	194
Bent Arm Lateral	6-8	4-5	142
Seated Barbell Press Behind Neck	6-8	4-5	186
Decline Lateral	6-8	4-5	142
Bent Over Dumbbell Rear Deltoid Raise	6-8	4-5	178
Wide Grip Front Chin	8-12	4-5	233
Straight Arm Dumbbell Pullover Across Bench	8-10	4-5	151
Seated Two Arm Low Lat Pull-In	8-10	4-5	250
Standing Toe Raise On Wall Calf Machine	15-20	9	510

T. Th. S.

EXERCISE	REPS	SETS	PAGE
Duplicate Abdominal Exercises For M. W. F.			
Dips	8-15	4-5	161
Seated Dumbbell Curl	6-8	4-5	433
Standing Medium Grip Barbell Triceps Curl	6-8	4-5	274
Seated Concentrated Dumbbell Curl	6-8	4-5	438
Lying Supine Two Dumbbell Triceps Curl	6-8	4-5	299
Incline Inner Biceps Curl	6-8	4-5	437
Thigh Extension On Leg Extension Machine	10-15	4-5	484
Heels Elevated Close Stance Barbell Squat	8-10	4-5	459
Thigh Biceps Curl On Leg Extension Machine	8-10	4-5	488
Standing Toe Raise On Wall Calf Machine	15-20	9	510

Two to three hours per workout; five to six times per week.

If physique competition is a primary goal, it is imperative to mentally prepare yourself. Start each training session with a positive attitude. Convince yourself each workout will bring physical improvement. Tell yourself you are becoming stronger, more muscular with added muscle size. Never let negative thoughts come into mind. Training procedures must become precise. Your training time, number of sets and repetitions, must be determined and adhered to. The poundage per exercise should be increased when physically capable. Poor eating habits must be corrected. Sun bathing is essential if weather permits. Posing sessions must be a regular part of the routine. Total preparation is the answer to winning.

TYPICAL WEIGHT TRAINING PROGRAM FOR MAJOR PHYSIQUE CONTESTS

M. W. F.				
EXERCISE	REPS	SETS	PAGE	
Incline Sit-Up	100	1	81	
Upper Body Barbell Circle	100	each side	71	
Three Way Leg Raise	50-100	each side	119	
Barbell Good Morning	100	1	66	
Weighted Incline Bent Knee Sit-Up	100	1	90	
Standing Barbell Twist	100	each side	70	
Bent Arm Lateral	5	5	142	
Incline Compound	3	5	147	
Decline Lateral	5	5	142	
Pec Compound	3	5	147	
Inner Pec Press On Inner Pec Machine	8	5	135	
Seated Barbell Press Behind Neck	5	5	186	
Standing Military Press	5	5	187	
Incline Rear Deltoid Circle	8	5	193	
Incline Close Grip Barbell Triceps Curl	8	5	272	
Lying Supine Close Grip Barbell Triceps Curl To Chin	5	5	277	
Lying Supine One Arm Dumbbell Triceps Curl	5	5	295	
Lying Decline Medium Grip Barbell Triceps Curl To Forehead ..	5	5	277	
Lying Floor Face Forward Two Arm Curl On High Wall Pulley ...	8	5	422	
Seated Medium Grip Curl On Biceps Machine	5	5	412	
Standing Close Grip Easy Curl Bar Curl	5	5	400	
Seated Concentrated Dumbbell Curl	5	5	438	
Standing Negative Resistance Toe Raise On Wall Calf Machine .	12	15	510	

T. Th. S.				
EXERCISE	REPS	SETS	PAGE	
Duplicate Abdominal Exercises For M. W. F.				
Pullover On Nautilus Type Machine	8	5	267	
One Arm Rowing Off Bench	6	5	244	
Straight Arm Dumbbell Pullover Across Bench	8	5	151	
Seated Low Lat Pull-In On Low Wall Pulley	6	5	255	
Wide Grip Front Chin	10-15	5	233	
Thigh Extension On Leg Extension Machine	10	5	484	
Flat Footed Wide Stance Barbell Front Squat	8	5	452	
Thigh Biceps Curl On Leg Extension Machine	8	5	488	
Wide Stance Leg Press On Wall Type Leg Press Machine	15	5	479	
Seated Toe Raise On Seated Calf Machine	15	15	513	
Seated Barbell Palms Up Wrist Curl	15	5	559	
Seated Barbell Palms Down Wrist Curl	12	5	559	
Kneeling Buddy System Neck Resistance			536	
Skip Rope	10-20 minutes			

2 hours, 30 minutes to 3 hours, 15 minutes per workout; five to six times per week.

ADVANCED WEIGHT TRAINING

- 1c. Everything listed above excluding #6a and 2b.
- 2c. Increase your training time to five or six periods per week. Use a split training program similar to that outlined in the guide. Work legs and back on separate days. Exercise the abdominal area and calves each day. Include neck and forearm exercises to the program if either are a weak point to your physique. If you train five days per week, work one program three days and the other two days. Alternate the programs each week to enable each muscle group to be exercised equally.
- 3c. Make weight training your number one form of fitness.
- 4c. Eliminate any vice that may curtail your physical improvement.

WEIGHT TRAINING FOR PHYSIQUE CONTESTS

- 1d. Everything listed above excluding 6a, 2b, and 2c.
- 2d. Outline a training program similar to that suggested for contest training. Do your exercises as strict as possible and concentrate on each repetition. Get a complete contraction and extension of the muscle with each movement. Perform about thirty sets of exercises per hour. Do little talking between sets except to encourage someone or to be polite. Begin and finish each training session with positive thoughts.
- 3d. Devise a posing routine that is best suited for your physique and practice it three or four times per week. Pose to music if possible to improve your timing. Select a song with a four-four beat. Practice your posing in privacy.
- 4d. Sunbathe as much as possible to improve the appearance of your skin. Use a good sun screen. Take in fluids while sunbathing to eliminate dehydration.
- 5d. If weight loss is desired, use a low carbohydrate diet about the last four to six weeks before a contest. Keep your carbohydrate count no less than 50% and no more than 75%.

SUMMARY

1. Exercise for total physical conditioning and body symmetry. Do not neglect or over-emphasize any muscle groups.
2. Do not remain on the same exercises, sets, or repetitions for long periods. Change them for the sake of variety, new goals, and exercising the muscle groups from different angles.
3. If doing more than one exercise for a muscle group, vary the exercise to affect different areas of the muscle. Using the chest for example, some exercises affect the upper pectoral, some the lower, others the inner, and some the outer pectoral.

4. There is no exact formula to follow in weight training. Any form of body building can be beneficial if done properly. Therefore, each person must discover what seems to work best for him and follow that basic format.

5. If exercising consistently, follow each training program approximately six weeks before altering. Do not skip from one program to another. It will hinder your progress.

6. Exercise in a wholesome atmosphere. Train for pleasure but conduct your training like a business. Try to keep negative thoughts from your mind and try not to ponder over your training once you have finished. Devote your attentions toward other obligations.

7. If you have negative vibrations toward your training program, change the format. If you are going stale on a particular exercise, omit it from your program for several months and replace it with exercises that work the same area. If you are suffering from an injury, do not select exercises that irritate the injury. (Try different movements and body positions that will enable you to exercise around the injury.)

8. Set goals for yourself and work toward achieving them.

CONCLUSION

It would appear that weight training can bring excellent physiological and psychological dividends. These benefits could carry through for a lifetime if proper conditioning is continued. With moderate exercise and proper nutrition, the body stands a better chance of prolonged health.

It is also possible that too much preoccupation with self-esteem could cause negative psychological benefits.

If a person becomes so involved with himself that little consideration is given to anything, or to anyone, else, he has lost at least 50% of the total benefits that can be derived from a sound, continued fitness program.

I suggest you study the above training programs and analyze the beneficial aspects of each one; then determine which program would best work into your current life-style.

The more time and involvement one puts into weight training, the more one should be concerned with the negative considerations listed. The price of a prize-winning physique can be extremely high if a person is not on guard to improve himself mentally and spiritually while attempting to improve himself physically. One is as important as either of the other two, and in the end, makes up the total man — who must be a champion at all three.

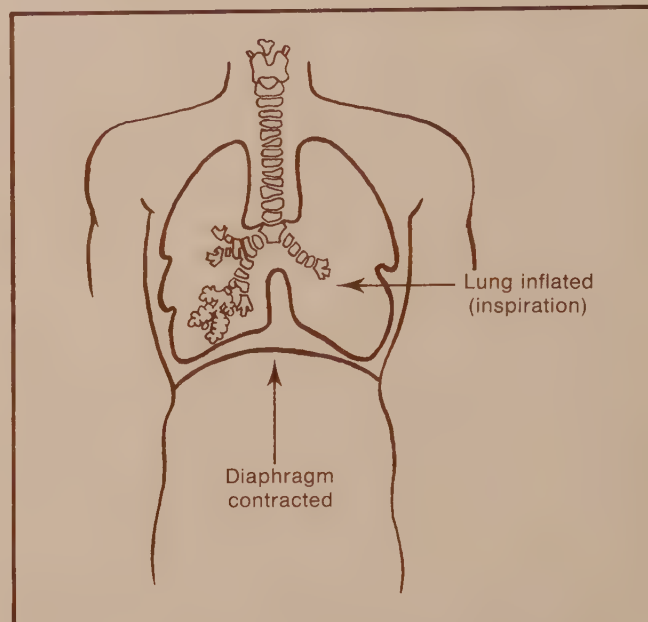
Proper Breathing for Weight Training

In most sports or other vigorous activities, the body is capable of getting all of the oxygen it needs without conscious effort. Proper breathing comes naturally. Weight training, however, is a very specific form of exercise which requires more emphasis on proper breathing.

One basic rule of proper breathing is: **never hold your breath while lifting.** In exercises where relatively light poundages or resistance is employed, it matters little whether you inhale or exhale while the exertion is greatest. However, power lifters and Olympic weight lifters always exhale when the stress is greatest. Holding your breath while trying to lift maximum poundages (such as a 400 pound bench press, etc.) puts severe strain on the blood vessels, and, if carried to the ultimate extreme, a blood vessel could easily be ruptured.

Proper breathing will enable you to do more work with less fatigue. The general rule is: exhale when the tension or strain is greatest. For example, in the bench press exercise, inhale deeply as you lower the weight; exhale as you push the weight back to the starting position above the chest. On exercises involving the chest, legs or abdominals, you **must** always exhale while the muscles are contracting. In other words, when they are under maximum stress. Exercises for the arms and shoulders, and in some cases, the back, you may exhale or inhale during the stress. Either way is OK.

On all exercises that vigorously work the chest or induce heavy breathing (including heavy leg

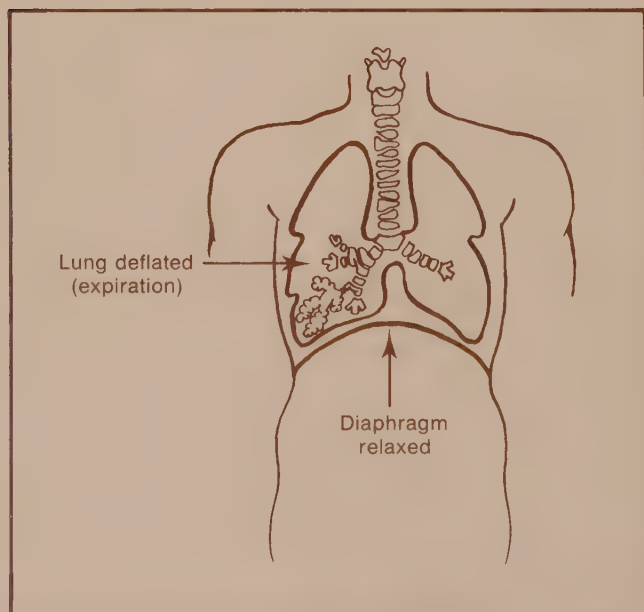


work), always inhale deeply through the mouth to get a maximum amount of oxygen into the lungs on each repetition. Sometimes, while performing a large number of repetitions on abdominal exercises, it simplifies things by concentrating only on exhaling during the stress part of the exercise during each repetition — you will automatically inhale as you return to the starting position. For example, if you are performing 50 rapid repetitions of sit-ups, exhale forcibly as you squeeze together on every rep and you'll automatically inhale as you lower back to the starting position.

During exercise or strenuous activity, muscle glycogen and fat are converted into energy with the help of oxygen. Oxygen is delivered to the muscles through the bloodstream by the red blood cells. The heart is the prime mover for delivering oxygen and nutrients to the working muscle tissues with its constant pumping action which continually forces these much needed materials all through the circulatory system.

The process by which oxygen is supplied to the cells of the body and carbon dioxide is removed from them is called respiration. The lungs and related tubes including the nose, pharynx, trachea and bronchi are known as the respiratory tract.

Perhaps the most important phase of respiration is what occurs at the cell level when the molecules of oxygen combine with molecules of carbohydrates, or sugars, to release the energy for muscle contractions or other energy-demanding activities of the body. This is how we receive and burn fuel for muscular activity.



SANDOW & PEARL



SANDOW & PEARL

AUTHOR'S NOTE

Because of the important role Eugene Sandow played in the early years of scientific body building, I feel it is only fitting to give you a brief glimpse into the gentleman's fascinating life. Not only did he cause men the world over to become more aware of their physical appearance, he also inaugurated the "sets and repetition system" of training that has developed nearly every top physique star the world has seen from that day forward.

Through his magnificent physique, strength, handsome features, and showmanship, Sandow took body building out of the beer halls and placed it on stage with the finest entertainment money could buy. He was a living example of what could be accomplished through hard work and dedication as well as a yard stick for all men to follow to physical perfection.

In his day he was what John Grimek was in the 1940's, what Reg Park was in the 1950's, what Bill Pearl was in the 1960's, and what Arnold Schwarzenegger was in the 1970's and what you may be tomorrow.

THE IMMORTAL EUGENE SANDOW

Frederick Mueller, better known to the world by the immortal name Eugene Sandow, was born in Koenigsberg, East Prussia, the son of a burgomaster.

At the age of ten, Sandow traveled with his father to Rome where the statues of the perfect men he had observed inspired him to make his own body perfect. He developed incredible strength and anatomy through modern scientific methods while studying medicine. Upon refusing a marriage arranged by his father, he was banished to make his own way in the world. He had tried wrestling, but he had inadvertently broken a man's back at a match in Toulouse, and he had resigned himself to the life of a common laborer, forbidden by his father to even use his own name.

The year 1887 found Sandow working on the docks in Genoa where he was observed by the prominent English painter, Sir Aubrey Hunt, lifting a huge crate singlehandedly off a pinned-down co-worker. The next day Sir Aubrey Hunt was busily sketching the young dockworker on a huge canvas, portraying him as a triumphant gladiator.

Sensing a certain charisma in Sandow that would today be considered "star quality," Aubrey urged Sandow to go to London to seek his fortune by defeating the mighty Goliath who offered a standing challenge to all comers for a purse of 500 pounds sterling.

Weeks later found Sandow performing at the Casino in Monte Carlo, painted statue-white, nude save a giant white fig leaf, performing classic art poses for none other than the likes of Albert, Prince of Monaco.

Finally, with enough money saved for passage to England, Sandow boarded a train for London. As the train crossed the border to France, the model befriended a rather middleclass German couple enroute to London to seek political asylum, where the gentleman intended to complete a book of his radical theories. Abruptly, an anarchist's bomb exploded under the car and the train was derailed. The older German was knocked unconscious. The model carried him swiftly out of the smoking rubble to safety. He was promptly revived, and offered profuse thanks to his young countryman, and presented himself: Dr. Karl Marx.

Summer of 1887: Victoria reigned supreme and London was the capital of the world. The Trocadero, a cavernous music hall where vaudeville was born, was packed. The M.C. announced the bill and introduced Goliath, "the strongest man on earth." Goliath came to the footlights — huge, dapper, radiant in medals, tights and dainty boots and smiling with confidence. He wanted fair play, and offered 500 pounds sterling to any man who would come on

stage and surpass or even match the feats he would perform.

Suddenly a commotion arose from the back of the hall as a graceful figure reached the stage by flying leaps from box to box. The crowd went mad for the challenger's spectacular entrance. The cheers turned to gasps as he removed his shirt and revealed his spectacular physique.

Backstage as Sandow psyched up for the match, the young German was distracted from his warm-ups by a high sweet voice singing "O Evening Star" on stage. He moved to the wings to catch a glimpse of the performer and was smitten on the spot. The songstress bowed gracefully into the gas footlights and exited offstage where she ran right into the muscular young German, who stood hypnotized by her presence. Sandow learned promptly that the most perfect woman he had ever imagined billed herself as Lillian Russell, "An American Beauty."

In an instant, Sandow snapped out of his reverie and was on stage. Goliath began by lifting huge kettlebells of increasing increments. Bending coins and crowbars, etc. . . . The compact Sandow





Pearl in a pose similar to what Sandow may have used in his famous routines.

equalled each feat, to the giant's amazement and the audience's delight. Finally the stagehands were instructed to bring out a large platform. Sandow politely requested Goliath to mount the largest of the kettlebells and himself on the platform. The young German challenger then shouldered the platform and, after a tense moment of supreme concentration, lifted the platform high into the air for a brief instant and sent it crashing down onto the stage. The giant Goliath tumbled sprawling into the orchestra pit, and the crowd went wild. Clearly the brazen young challenger was the strongest man on earth.

The following day Sandow learned that the American Beauty, Lillian Russell, had sailed with the tide for New York. Instantly he decided he must find her, come what may.

New York: Sandow and his traveling friend, with only a few pounds in their pocket, soon abandoned the search for the anonymous Miss Russell in the teeming metropolis, and began dealing with the art of survival in their new and alien environment. He and his sidekick found work as lowly "whitewings," a clean-up act paid by the city to pick up after the countless horses that plied its avenues. One morning on lower Broadway, a magnificent Percheron pulling a beer wagon slipped and fell at an intersection, causing havoc. The powerful young German lifted the giant horse to its feet with ease.

This time the feat of strength was noticed by a dapper young man with a golden tongue who invited the immigrants to dinner. That night, the pair sat transfixed by their glib and stylish little host, who was full of boundless ambition and energy. He was from Chicago, the son of a prominent opera impresario — Florenz Ziegfeld. Like the young German strongman, he had been disowned by his stuffy father and was determined to make his own fame and fortune in the burgeoning new "show business." Soon, as he told the spellbound young immigrant, the name of Florenz Ziegfeld, Jr., would be known far and wide as the greatest impresario in the land. And Sandow would share in the glory and profit as his first client. Sandow would create the images and Ziegfeld the myths.

Within a few years Eugene Sandow had become a household word throughout America. Sought out for endorsements of products ranging from Sandow cigars to health elixirs and tonics, he was earning an unbelievable \$3500 per week. No private men's club or elegant tonsorial salon was without a prestigious silver-framed autographed photograph of The Most Perfect Man.

Despite the repressions of the Victorian era, there were any number of matinee girls who would linger for hours following an afternoon performance by Eugene Sandow, yearning for a close glimpse of The Most Perfect Man in the World.

While performing in England, one very resourceful such young lady in Birmingham, barely 18, coyly made her way past the guards into Sandow's dressing room and hid in his armoire. After the initial shock, the lustful young matinee girl provided Sandow with a pleasurable afternoon's interlude from his over-burdened schedule.

Back in London some weeks later, Sandow was surprised to find the same matinee girl at his hotel door, in quite an anxious state. She soon fell to pieces in his arms, tearfully admitting she was pregnant. Her father, the Lord Mayor of Birmingham, would beat her within an inch of her life, then commit her to a convent, were he to learn of her sin. Drawn together by the mutual shame and despair, Sandow spent the night comforting the ever-lustful young lady. He eventually married Miss Janet Moorehead of Birmingham and utterly withdrew from the world he had known and loved.

Sandow adjusted slowly to the rigid and monotonous life of the bourgeois country gentleman. Unable to find employment suitable to his talents in the cold provincial town, he began work on a periodical he





This photo of Pearl at 236 pounds leaves little to be desired.

wanted to publish on "physical culture." His efforts were scorned by his stern father-in-law, in whose home he must reside as his wife gave birth to one and then another lovely daughter. To add to his misery, his once-lustful wife gradually turned frigid and shrew-like. In an effort to escape the cruel trap fate had caught him in, Sandow journeyed to London as often as possible to pursue his dream of a publication that would help others to improve themselves.

It was on one such trip that Sandow was invited by the Royal Society of Natural History to allow his body to be cast in plaster as part of a museum exhibition on the new Theory of Evolution. Sandow gladly submitted to the excruciating ordeal, thinking this would surely please his nagging wife and father-in-law.

Early one morning after the exhibit was opened, Sandow's wife dressed their four- and six-year-old daughters for a train ride to London. Assuming Sandow had posed for a sculptor who would have exercised certain discretions, the poor young woman nearly had a grand mal seizure as she stood before the lifecast of her husband — magnificent anatomy displayed in unabashed frontal nudity. She shielded her daughters' eyes and returned home that evening in pitch hysterics, joined by her father in berating the hapless Sandow like never before.

A telegram from Buckingham Palace requested the presence of The Honourable Eugene Sandow for a most urgent and private audience with His Royal Highness, Edward, Prince of Wales. There was utter silence in the home of Lord Mayor Moorehead and his daughter as Sandow packed and made ready to be driven by motor car to London to once again follow his destiny.

In the final years of Queen Victoria's life, her son Edward foresaw the holocaust soon to be caused by his cousins sitting on the various thrones of Europe. Alarmed by the pathetic shape and physical decadence of the British Fighting Man, he had summoned Sandow to discuss the feasibility of a physical fitness training program for the empire's defense forces. Ironically, Edward's inspiration came upon viewing Sandow's splendid lifecast at the Museum of Natural History. For months Prince Edward played host to Eugene Sandow as they pooled their energies to rebuild the British Army from the inside out. Sandow became personally familiar with and respected by the entire English aristocracy.

Through the years, his bourgeois shrew of a wife basked in the limelight of his hard-earned glory, rarely seeing him, content to live out their sham of a marriage in name only.

Sandow and his long-time traveling friend decided to spend a lovely summer's day on a picnic, inviting two sleek French lovelies to spend the day in their company. Coming time to go, it was noticed that the

sleek Hispano-Suiza they were driving had developed a flat rear tire. Finding no jack in the car, Sandow laughed and rolled up his sleeves. "Have you forgotten who is the strongest man on earth?" The French girls giggled with excitement as Sandow hoisted up the rear end of the touring car with ease, holding it as his friend quickly changed the tire. Securing the lugs, he signaled Sandow to lower the car. The great Sandow stood motionless, holding the car in an iron grip . . . and keeled over dead.

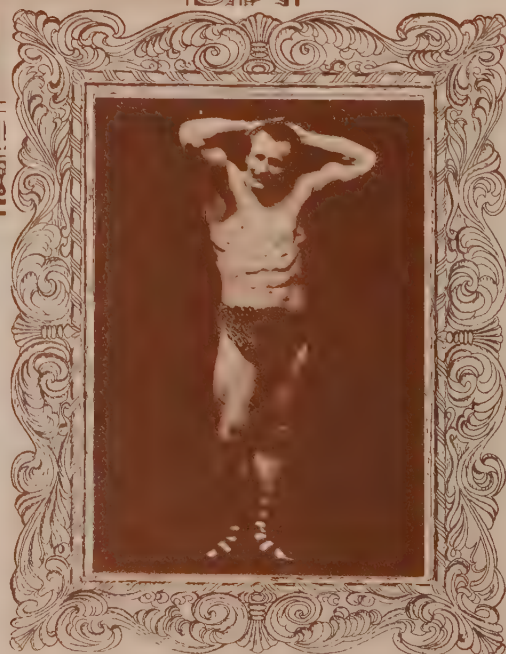
Eugene Sandow died of an abdominal rupture, which puzzled examining physicians. He daily exercised with greater poundages than that which caused his death.

His hypocritical wife was so humiliated by the scandalous presence of the young ladies reportedly found with her husband's body on a lonely country lane that she buried him in an unmarked grave in Birmingham, changed her name, and devoted her energies to the destruction of every photograph or document relating to her late husband that she could lay her hands on.





Possibly one of the finest physique photos of Pearl taken by Stern.

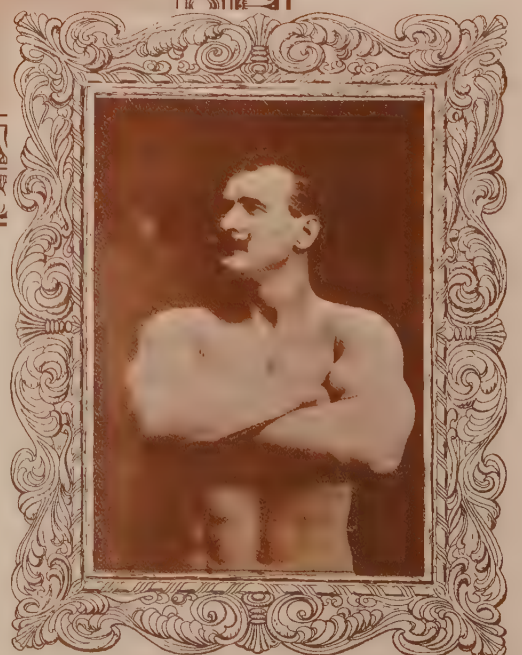




Even the awkward stance used by the old time strong men cannot hide the massive grace for which Pearl is so famous.



Pearl studied Sandow's posing routine for years prior to adapting it in his strong man act for personal appearances and television.





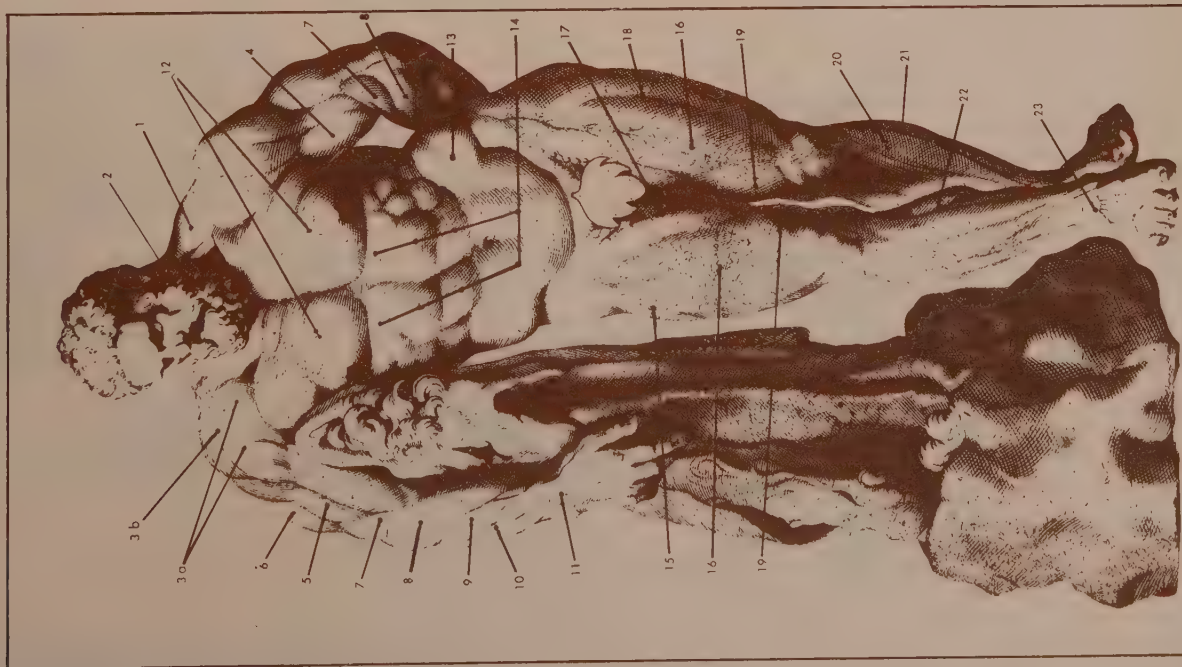
Old time posing routines had little flair. The stance was stiff with most of the body weight supported by the straight leg.



No old time strong man's posing routine was complete without the use of a fig leaf, or bearskin trunks, and Roman shoes.

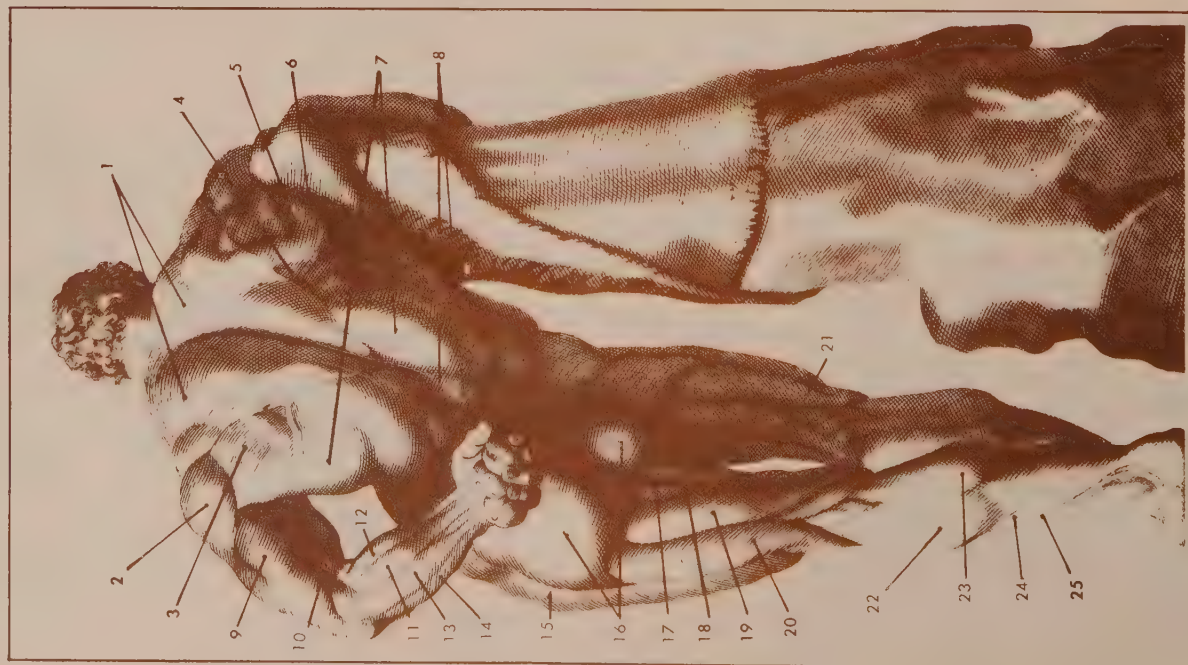


A CONCISE CHART OF VOLUNTARY MUSCLES AND THEIR FUNCTIONS, PLUS THE EXERCISES THAT INVOLVE AND DEVELOP THEM.



NAME OF MUSCLE	ACTION OF MUSCLE	ACTIVITIES THAT DEVELOPS THE MUSCLE
1. TRAPEZIUS	Draws head backward and to either side; raises shoulder girdle, rotates scapula.	Shrugging motion, teeth lifting, neck work, all lifting to shoulders and overhead. Handbalancing, wrestling and gymnastics.
2. STERNOCLEIDOMASTOID	Draws head forward, rotates head and helps to lift chest in forced and deep breathing.	Forward bridging, pushing on forehead and resisting with head. All lifting involving the trapezius also activates this muscle. Wrestling, boxing and supporting weight on head.
3. DELTOID a-ANTERIOR b-LATERAL	Raises arm to shoulder level and assists in overhead movement.	All forms of forward and lateral raises, all pressing movements and overhead lifting, dips and handbalancing, gymnastics, swimming and chest expander exercises.
4. & 5. BICEPS-BRACHIALIS a-ANTERIOR b-LATERAL	Flexes and supinates forearms and adducts arms.	Single and two hand curling, reverse curling, chinning, all lifts to the shoulders, especially cleaning, also, all types of rowing, lat-machine work, rope climbing, gymnastics, wrestling, etc.
6. TRICEPS, OUTER HEAD	Extends forearm.	Pressing in various forms, standing, sitting, lying, etc. All extension movements, dips, all overhead lifting and supporting, all straight arm work, handbalancing, gymnastics, etc.
7. BRACHIORADIALIS	Flexes forearm and helps supination.	* Most of the exercises listed in number 4 aids development of this muscle.
8. RADIALIS LONGUS	Extends hand and abducts hand with flexor carpi.	Using thick-handled weights, pinching gripping, cleaning weights to shoulders, finger stunts, spike and bar bending, wrist turning, etc.
9. RADIALIS BREVIS	Extends hand as part of longus.	All movements listed above under number #8.
10. EXTENSOR DIGITORUM COMMUNIS	Extends fingers.	All finger movements and lifting, handbalancing on fingers as well as dipping and most of the exercises listed in number #8.
11. LIGAMENT OF WRIST	Supports and holds wrist bones together.	All heavy supports, wrist curls, wrist wrestling, handstands.
12. PECTORALS	Draws arm forward and inward, assists in chest expansion, aids in rotating arm inward.	All supine, decline and incline pressing, lying laterals, pullover, "diabolos," flying exercise, many chest expander exercises, dips, close-grip chins, bent-arm pullover, rope climbing, gymnastics, swimming, wrestling, etc.
13. EXTERNAL OBLIQUE	Rotates pelvis to the same side, flexes pelvis on chest.	Side bends, twisting movements, rotating torso while hip and legs remain stationary, sit-up, all single overhead lifting, especially side and bent presses, single leg raise while standing, wrestling, tennis, bowling, etc.
14. RECTUS ABDOMINIS	Flexes body, compresses the viscera and depresses thorax.	All types of sit-ups, on floor, raised board and Roman chair. All forms of leg raises in lying position and between parallel bars or hanging from chinning bar. Also frog kick, knee-pull-in to chest, and all bending and twisting movements.
15. TENSOR FASCIA	Abducts thigh and rotates inward.	Raising leg upward while lying on side, holding knees together with hands then forcing knees apart, most exercises that aid thigh development.
16. RECTUS FEMORIS	Extends thigh, flexes leg.	Knee bends, jumping squats and other variety of squatting. Also straight leg sit-ups and leg raises in lying position, Roman column and chair work, harness and straddle lifts, jumping, tumbling, diving, sprinting, cycling, etc.
17. ADDUCTOR LONGUS	Adducts, rotates	Wide stance squats, placing "crusher" between legs and forcing legs together, full or partial split and attempting to "slide up." Acrobatic and ballet dancing. In wrestling, the scissors hold. Lying on back and spreading legs apart and bringing them together again. A rubber cable attached to ankle and moving it inward.
18. VASTUS EXTERNUS	Extends leg.	Most of the exercises recommended and suggested for number 16.
19. VASTUS INTERNUS	Extends leg.	Exercise as those mentioned above.
20. TIBIALIS ANTERIOR	Flexes foot and elevates the inner border.	Squats, raising toes, rotating the ankle, callex apparatus, sprinting, mountain climbing, etc.
21. PERONEUS LONGUS	Extends, abducts and everts the foot.	All exercises mentioned and suggested for number 20.
22. GASTROCNEMIUS	Extends foot and flexes leg.	Raising and walking around on tiptoes, all form of calf work on leg press machine and from foot movements. Stair-leg deadlifts various form of squats and knee-bending, running and standing broad jumping, tap and ballet dancing, callex apparatus work, stair climbing, skipping one or two steps in the process; sprinting and running, etc.
23. LIGAMENT OF ANKLE	Holds bones and tendons in place.	All exercises that work the shin and calf muscles of the lower leg.

HERCULES MUSCLE CHART



NAME OF MUSCLE	ACTION OF MUSCLE	ACTIVITIES THAT DEVELOPS THE MUSCLE
1. TRAPEZIUS	Draws head backward and to either side; raises shoulder girdle, rotates scapula.	Shrugging motion, teeth lifting, neck work, all lifting to shoulders and overhead. Handbalancing, wrestling and gymnastics.
2. POSTERIOR DELTOID	Raises and draws arm up and backward	All rowing type of exercises, lateral raise while bending over, chest expander movements, etc.
3. INFRASPINATUS	Aids in rotating upper arm outward	Activated in most lifts that raises weight to shoulder and overhead, as well as all one hand lifting. Gymnastics, swimming, rope climbing, iron bar bending and other strongman stunts.
4. RHOMBOIDEUS	Pulls scapula up and inward	Pullover with weights, upright and all swing exercises, most exercises done in lying position, bent-over lateral, pull-down and other exercises, chin-ups, rope climbing, most chest expander exercises and lifting movements.
5. TERES MINOR	Rotates and abducts upper arm	Most of the exercises listed in #3.
6. TERES MAJOR	Pulls arm down and backward, rotates arm inward	The same exercises as listed in #4.
7. LATISSIMUS DORSI	Draws arm downward, backward and rotates it	One and two hand rowing movements upright rowing, pull-down behind neck, on lat-machine and pressing and other exercises. Bench press, pullover, dislocates, chin-ups, rope climbing, wrestling, gymnastics, etc., etc.
8. ERECTOR SPINAE	Supports and holds body upright, permits bending	All bending movements, especially deadlifts, "good morning" exercises, all lifting movements. All twisting, side bends, leg raises and abdominal work. Handbalancing, tumbling, swimming, jumping, golf, hockey, hyperextension, etc., etc.
9. TRICEPS, LONG HEAD	Extends arm and draws it backward	Pressing in various forms, standing, sitting, lying, etc. All extension movements, dips, all overhead lifting and supporting, all straight arm work, handbalancing, gymnastics, etc.
10. TRICEPS, INNER HEAD	Works in combination with outer and long heads	Same exercises listed in #9
11. FLEXOR CARPI RADIALIS	Flexes and pronates hand, and with extensor carpi longus, abducts hand	Wrist curls, pinch gripping stunts, hand grips, handling thick-handled dumbbells or barbells, handstands on finger tips, dipping on fingers, all finger lifts, card tearing, cap bending, all forearm exercise.
12. BRACHIORADIALIS	Flexes forearm and assists supination	Single and two hand curling, reverse curling, chin-ups, all lifts to the shoulders, especially cleaning, also, all types of rowing, lat-machine work, rope climbing, gymnastics, wrestling, etc.
13. PALMARIS LONGUS	Flexes hand	The same exercises as listed in #11
14. FLEXOR CARPI ULNARIS	Extends hand and helps to abduct it	Same exercise as those listed in #11
15. TENSOR FASCIA LATA	Abducts thigh and rotates it inward	Raising leg upward while lying on side, holding knees together with hands then forcing knees apart, most exercises that aid thigh development.
16. GLUTEUS MAXIMUS	Extends thigh and rotates it outward	All knee bending movements; full, half and partial squats. Deadlifts, hand and thigh lift, straddle and harness lifting, stair climbing, jumping, cycling, tumbling, leg extension and all lifting movements including leg press.
17. ADDUCTOR MAGNUS	Adducts thigh and rotates it outward	All exercises that involve the thighs and hips, holding chest crusher between legs and forcing legs together against the resistance . . . can be done also with hand pressure, squat with wide stance, jumping and ballet type of exercises.
18. GRACILIS	Adducts leg, flexes and rotates it inward	Is activated in leg curling exercises, the "split," in stiff leg deadlifts, certain leg raising (standing) movements and most of the exercises listed in #17.
19. SEMITENDINOSUS	Flexes leg and extends thigh, rotates leg inward	Most of the exercises listed in #16
20. BICEPS FEMORIS	Flexes leg and rotates it outward, aids in extension	All the exercises listed in #18
21. SEMIMEMBRANOSUS	Same as #19	All exercises listed in #16
22. GASTROCNEMIUS OUTER HEAD	Extends foot, flex leg	Raising and walking around on tiptoes, all form of calf work on leg press machine and iron boot movements. Stiff-leg deadlifts, various form of squats and knee-bending, running and standing broad jumping, tap and ballet dancing, callex apparatus work, stair climbing, skipping one or two steps in the process; sprinting and running, etc.
23. INNER HEAD	Same as above	All exercises listed above plus sprinting.
24. SOLEUS	Extends foot and rotates it inward	Activated in all the exercises listed in #22 & 23
25. PERONEUS LONGUS	Extends, everts and abducts foot	Squats, raising toes, rotating the ankle, callex apparatus, sprinting, mountain climbing, etc.

Prolong YOUR Productive years

The most important aspect of weight training, whether for the athlete, body builder, or for the average active person, should be a concern to better one's health and ability without injury. There are some basic principles that should be discussed in order to achieve the most efficient exercise program possible.

The first is body posture; perhaps the most underestimated attitude of conditioning. Each person should examine his physique, paying strict attention to posture by looking at himself nude in front of a mirror. His feet should be evenly balanced without rolling in or out. The ankles should be even without the knees being too close together or too far apart. Matching portions of the body should be level with each other such as the hips, ears and eyes. The shoulders should be thicker than the chest and the chest much thicker than the midsection.

The entire body works on a principle of balance; therefore, its efficiency is directly proportional. For example, if the person's abdomen is weaker, the back muscles become tight and posture changes creating a sway back or backward weight-bearing lean. If the abdominal muscles are tight and the trunk compensates forward as the back muscles become weak, the posture assumes a forward lean, the shoulders drop, the neck and head stick out, and multiple symptoms may result.

Weight training can be used as a rehabilitation measure as well as a training device to help correct these structural imbalances. Experience shows that once improper muscle development has occurred and the specific weak muscle groups have been identified, agonist/antagonist muscular development programming can be organized to help correct these problems. If the biceps are weak, the athlete should challenge the biceps muscle by curling with a weight resistance object through full range of motion slowly. This will activate muscle response then allow the arm to return to full extension slowly which will cause activation of the triceps in order to return the weight to a position of rest. He will have attempted to achieve some level of balance within the biceps/triceps relationship, directly affecting elbow and shoulder stability; therefore the balance will dynamically affect the upper torso and its efficiency.

If a total weight training program is incorporated after the person has assumed proper body balance using similar contra-lateral exercising programs for the particular areas of the body, not only does his efficiency in athletics, body building, and personal appearance improve but also the rate of injury usually decreases. For the body builder interested in physique competition the results are a better balanced symmetrical physique with fewer muscle groups more outstanding than another plus lack of injury.

In athletics one commonly sees a world champion who has supposedly burned himself out at age twenty-five. Why can some athletes play until their mid-forties and still perform with efficiency and the will to win? It is probably a safe assumption that many of these athletes are fortunate to have proper muscle balance while others suffer from muscle imbalance.

The same may be true with competitive body builders. Many are finished with competition at a very early age because of low back and joint problems while others are competing and giving physique exhibitions in their mid-fifties. A great deal of the added years of activity in body building can be attributed to proper training habits.

The same holds true for the person interested in good health and youthful appearance throughout his life span. If the individual makes a habit of exercising regularly, watching his eating habits, eliminates as much stress as possible and keeps a young attitude towards life, it is bound to continue to pay dividends every day the person lives.

It is therefore extremely important that anyone who wished to gain many possible years of participation with a high degree of excellence in his or her activity, develop a holistic attitude. An attitude concerned with a proper conditioning program that strives for a balanced physique, predicated on strength, proper posture and coordination. Nutrition and psychological aspects of health should not be overlooked. Our goal is to help you help yourself. Your goal should be to apply these concepts in order to decrease the rate of injury and increasing the excellence of your performance.

Introduction to Abdominal Section

The abdominal muscles are made up of the rectus abdominis, obliquus internus abdominis, obliquus externus abdominis and transversus abdominis. These muscles form the abdominal wall, the purpose of which is to support and maintain stability of the front of the abdomen and therefore, help maintain erect posture of the trunk.

In many athletic activities these trunk flexors are prime contributors to the action required to perform the sport. Some of these activities include javelin throwing, pole vaulting, high jumping, baseball and football, to name a few. Many of these activities also require a rotatory movement provided by the internus, externus and transversus abdominis. These activities include throwing, golf, batting, racquetball, tennis, handball, badminton, shotput, discus, hammer throwing and swimming. Side bending or lateral flexion is an important action of the abdominal muscles, primarily the obliquus externus abdominis and is utilized during shot putting, sideward lifts, throwing, dancing, and many gymnastic movements.

If the abdominal muscles are weak, all the aforementioned athletic activities may be affected resulting in a decreased ability of the vertebral column to flex or bend forward, sideways or rotate. Weakness can also affect the efficiency of respiration and decrease the support of the abdominal organs, therefore, resulting in a forward pelvic tilt. The abdominal muscles actually hold the front of the pelvis up. This is accomplished by means of the attachment to the pubic bone. If the abdominal muscles are relaxed or weakened it can lead to a greater swaying of the low back proportionate to the amount of laxity of the abdominal wall. The result of this weakness in

the standing position is an increased lumbar curve which may lead to a structural/muscular weakness which decreases the ability of the mid-spine to flex toward the pelvis. Therefore, weakness of the abdominal wall may lead to improper postural balance. In viewing an athlete from a side posture, this imbalance would appear as a predisposition toward a protruding abdomen, a swaying of the lower back and a protruding buttock. In summation, weakness of the abdominal muscles leads to instability of the trunk and, therefore, a greater incidence of low back and related trunk injuries.

One cannot overemphasize the relationship between weak abdominal muscles and the frequency of athletic or stress injuries. The abdominal muscles must enhance stability of the spine. High jumpers, pole vaulters, gymnasts, divers, or those athletes who perform activities which require trunk rotation or an abdominal torquing action may be especially subject to severe injury as the underlying tissue usually absorbs the greatest amount of shock from a blow or impact. However, like most soft tissue or musculature, the abdominal muscles are vulnerable to contusion and strain when overstressed.

The most prevalent abdominal injuries are usually the result of improper warm up or stretching techniques before strenuous activity. In weight lifting if the athlete does not prepare himself properly before a lift, the incidence of injury is greatly increased. Therefore it is considered a good idea to practice abdominal exercises prior to any strenuous athletic endeavor as part of the preconditioning procedures prior to the activity.

Abdominal section



Bill in 1971 at a body weight of 242 pounds.

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

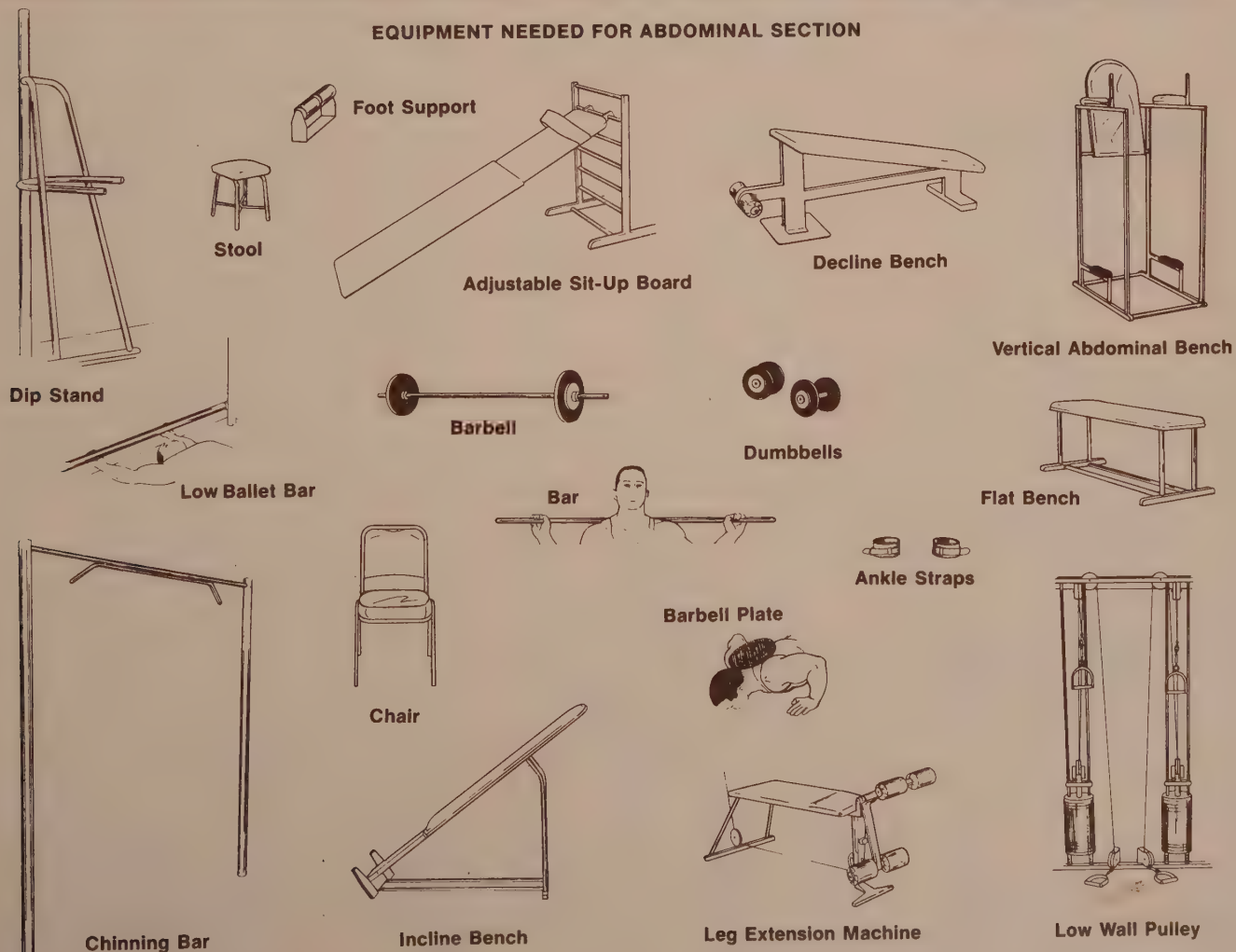
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

EQUIPMENT NEEDED FOR ABDOMINAL SECTION

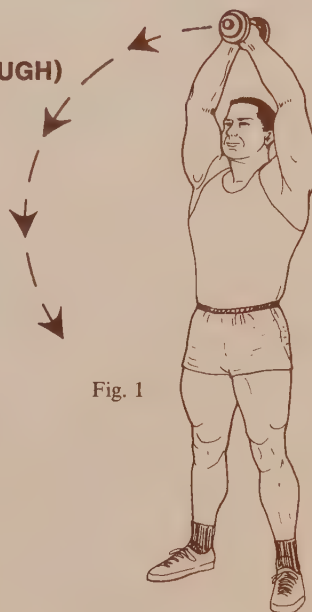


**WARM-UP
(DUMBBELL SWING THROUGH)**
Most large muscle groups

Fig. 2



Fig. 1



● **Warm-Up (Dumbbell Swing-Through)**

Grasp a dumbbell with both hands. Stand erect with your feet about sixteen inches apart. With your arms straight, bend at the waist until your upper back is parallel with the floor. Inhale and raise up with the dumbbell held at arm's length until it is directly overhead as you come to an erect position. Lower the dumbbell back to starting position in the same semicircular motion you raised it and exhale. Try to swing the dumbbell through your legs to stretch as much as possible before repeating the next repetition.

● **Barbell Good Morning**

Stand erect with your feet about sixteen inches apart. Place a light barbell on your shoulders. Grasp the bar with both hands in a comfortable position. Keep your back straight and your head up as you inhale and bend forward at the waist until your upper body is parallel to the floor. Return to starting position and exhale. Be sure your knees are in a locked position during the entire exercise.

BARBELL GOOD MORNING
Lower back and abdominals

Fig. 1

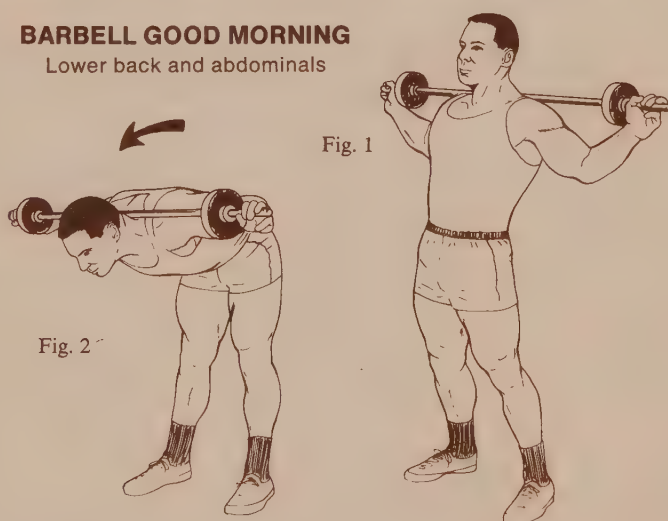
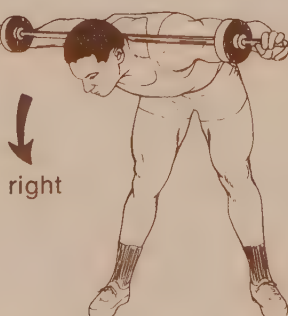


Fig. 2

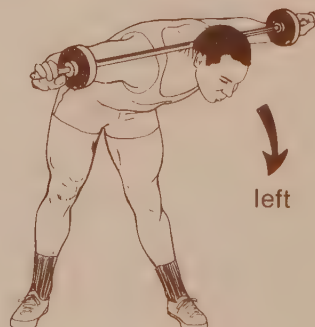
▲ **Twisting Barbell Good Morning**

Stand erect with your feet about sixteen inches apart. Place a light barbell on your shoulders. Grasp the barbell with both hands in a comfortable position. Now twist your torso to the right by twisting at the waist while keeping your hips and legs in a straight line. Keep your back straight and your head up as you inhale and bend forward at the waist until your upper body is parallel to the floor. Return to starting position and exhale. You will perform the prescribed number of repetitions on the right side and then change to the same position on the left side and repeat the exercise. Be sure your knees are in a locked position during the entire exercise.

TWISTING BARBELL GOOD MORNING
Rear obliques and abdominals



right



left

● **Alternated Twisting Barbell Good Morning**

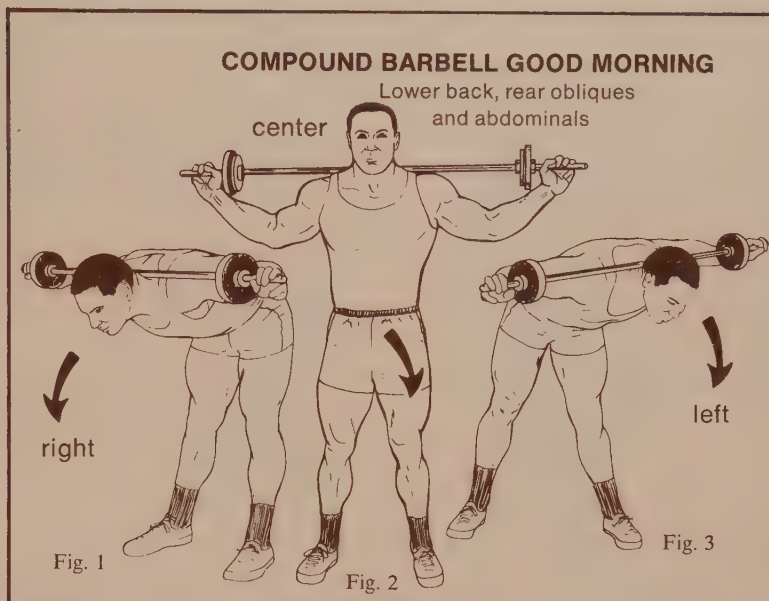
Rear obliques and abdominals

Stand erect with your feet about sixteen inches apart. Place a light barbell on your shoulders. Grasp the barbell with both hands in a comfortable position. Now, twist your torso to the right by twisting at the waist while keeping your hips and legs in a straight line. Keep your back straight and your head up as you inhale and bend forward at your waist until your upper body is parallel to the floor. Return to starting position and exhale. Now, change to the same position on the left side and repeat

the exercise. The movement to the right and left will constitute one repetition.

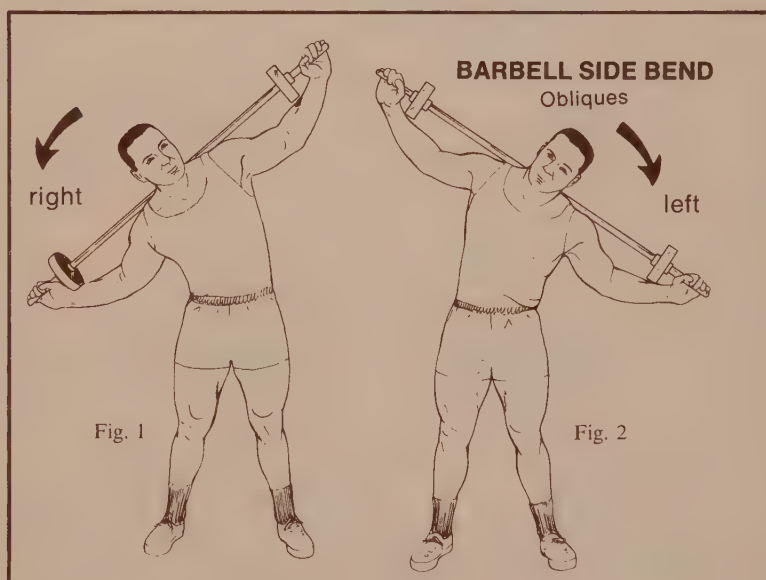
▲ Compound Barbell Good Morning

Stand erect with your feet about sixteen inches apart. Place a light barbell on your shoulders. Grasp the barbell with both hands in a comfortable position. Now, twist your torso to the right by twisting at the waist while keeping your hips and legs in a straight line. Keep your back straight and your head up as you inhale and bend forward at your waist until your upper body is parallel to the floor. Return to starting position and exhale. Now, twist your torso to normal and perform a regular good morning exercise. After you have returned to the top position, twist your torso to the left and repeat the movement. You then twist your torso to a straight position and do a regular good morning exercise again and then back to the right, etc.



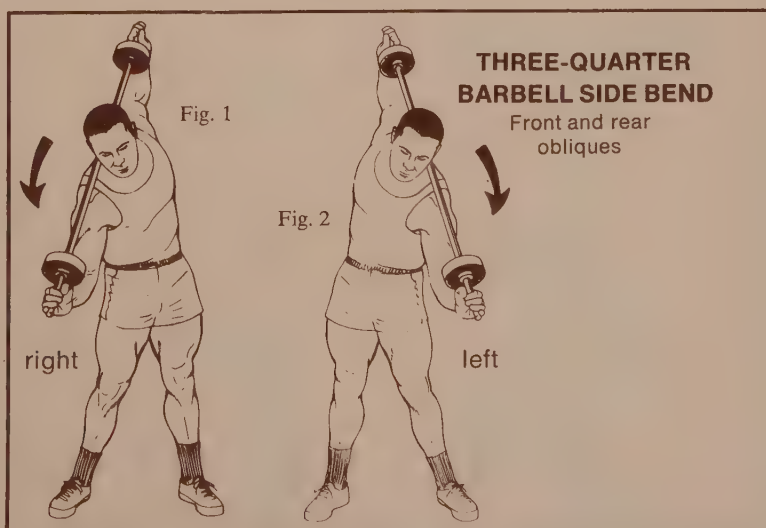
▲ Barbell Side Bend

Stand erect with your feet about sixteen inches apart. Place a light barbell on the back of your shoulders. Grasp the barbell with both hands in a comfortable position. Inhale and bend to the right as far as possible and then bend to the left as far as possible and exhale. Be sure you are bending at the waist only and not at the hips or knees. Also be sure to keep the barbell firmly on the shoulders.



▲ Three-Quarter Barbell Side Bend

Stand erect with your feet about sixteen inches apart. Place a light barbell on the back of your shoulders. Grasp the barbell with both hands in a comfortable position. Now, twist your torso to the right by twisting at your waist while keeping the hips and legs in a straight line. Inhale and bend to the right as far as possible and then bend to the left as far as possible and exhale. You will perform the prescribed number of repetitions and then change positions to the left side and repeat the exercise. Be sure to twist and bend only at the waist. Keep your back straight and your head up.



▲ Alternated Three-Quarter Barbell Side Bend

Stand erect with your feet about sixteen inches apart. Place a light barbell on the back of your shoulders. Grasp the barbell with both hands in a comfortable position. Now twist your torso to the right by twisting at the waist while keeping the hips and legs

SEATED DUMBBELL SIDE BEND

Obliques

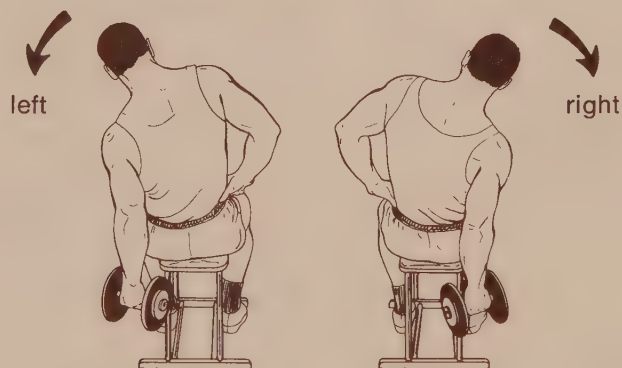


Fig. 1

Fig. 2

SEATED DUMBBELL REAR SIDE BEND

Front and rear obliques

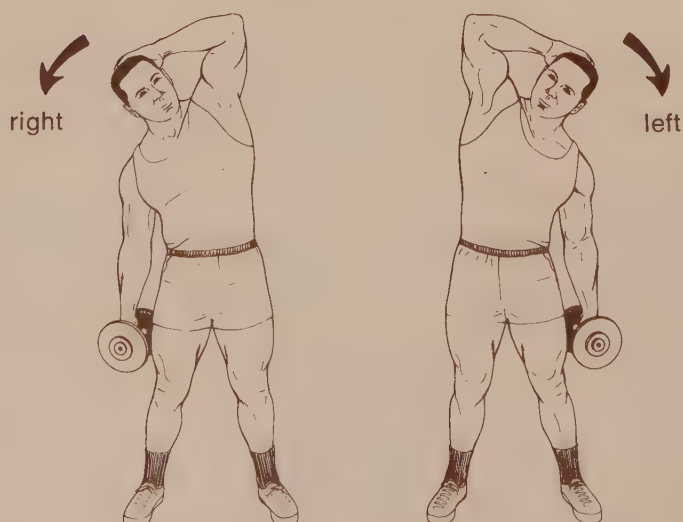


left

right

HAND ON HEAD DUMBBELL SIDE BEND

Obliques



right

left

in a straight angle. Inhale and bend down as far as possible and then bend backward as far as possible and exhale. Now twist your torso to the left and repeat the movement. Both movements are considered as one repetition.

▲ Seated Dumbbell Side Bend

Sit on the end of a bench with your feet planted firmly on the floor. Grasp a dumbbell in your right hand with your palm facing in. With your back straight and your head up, inhale and bend to the right as far as possible and then bend to the left as far as possible and exhale. Perform the prescribed number of repetitions and then change the weight to the left hand and repeat the movement.

▲ Seated Dumbbell Rear Side Bend

Sit on a bench with your buttocks at the very end. Plant your feet firmly on the floor and grasp a dumbbell in your right hand and place it behind you so it is touching your right buttocks with your palm in. Twist your torso to the right and keep your back straight and your head up. Inhale and bend backward as far as possible and then bend forward as far as possible as you exhale. Perform the prescribed number of repetitions and then change the weight to the left hand and repeat the movement.

▲ Hand on Head Dumbbell Side Bend

Stand erect with your feet about sixteen inches apart and grasp a dumbbell in your right hand. Your palm will be facing your upper thigh. Place your left hand on the left side of your head. Inhale and bend to the right as far as possible and then bend to the left as far as possible and exhale. You will perform the prescribed number of repetitions and then change the weight to the left hand and put your right hand on the right side of your head, repeating the movement. You must remember to keep your back straight and your head up or you will bend too far forward.

▲ Hand on Head Dumbbell Front Side Bend

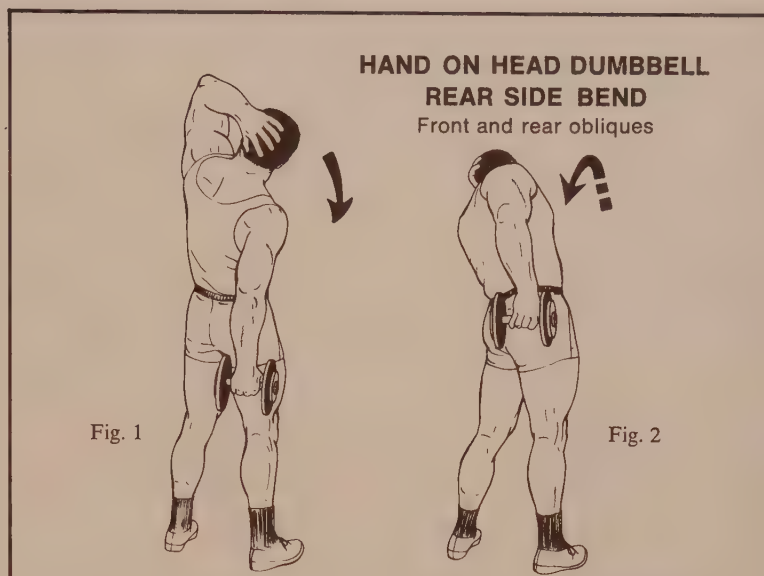
Front and rear obliques

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in your right hand and place it on your right thigh with your palm facing in. Place your left hand on the left side of your head. Twist your torso to the left and keep your back straight and your head up. Inhale and bend forward as far as possible and then bend backward as far as possible as you exhale.

Perform the prescribed number of repetitions and then change the weight to the left hand and repeat the movement.

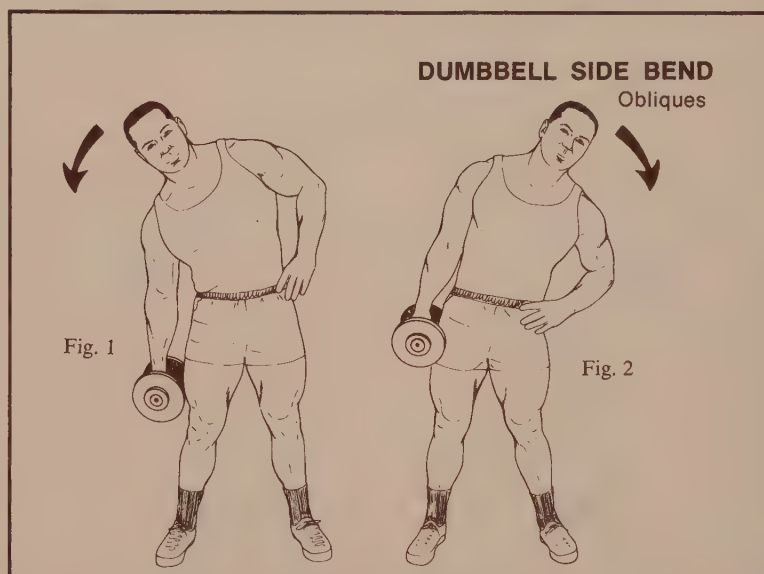
▲ Hand on Head Dumbbell Rear Side Bend

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in your right hand and place it behind you so it is touching your right buttocks with your palm facing in. Place your left hand on the left side of your head. Twist your torso to the right and keep your back straight and head up. Inhale and bend forward as far as possible and then bend backward as far as possible as you exhale. Perform the prescribed number of repetitions and then change the weight to the left hand and repeat the movement.



▲ Dumbbell Side Bend

Stand erect with your feet about sixteen inches apart and grasp a dumbbell in your right hand. Your palm will be facing your upper thigh. Place your left hand on your left oblique. Inhale and bend to the right as far as possible and then bend to the left as far as possible and exhale. You will perform the prescribed number of repetitions and then change the weight to the left hand and repeat the movement. You must remember to keep your back straight and your head up or you will bend too far forward.



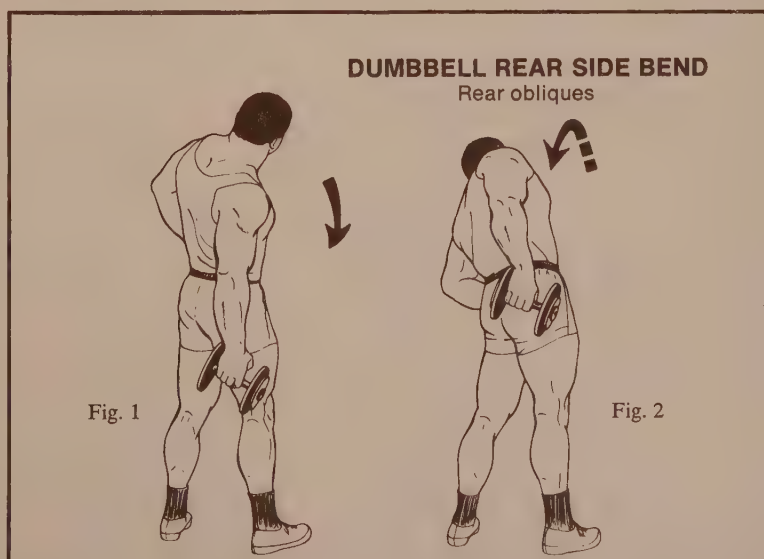
▲ Dumbbell Front Side Bend

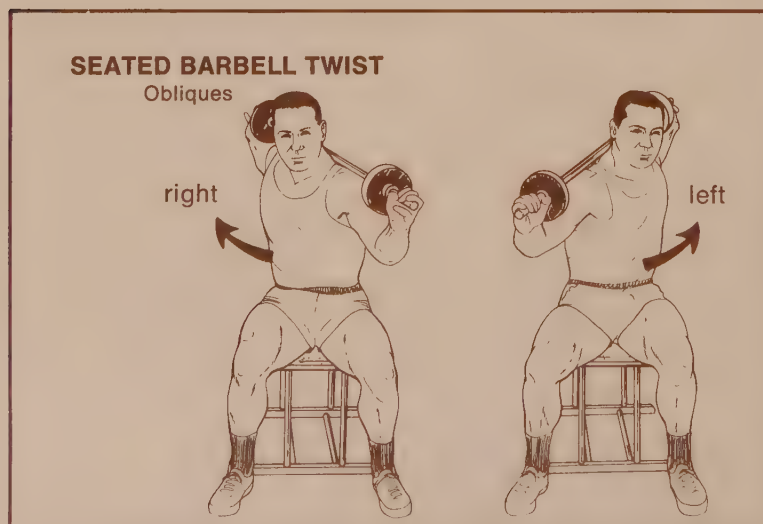
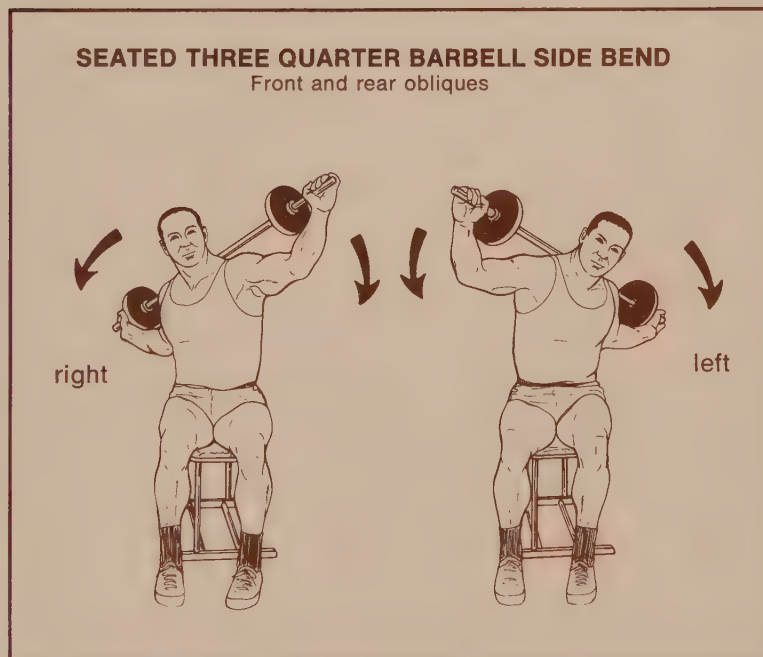
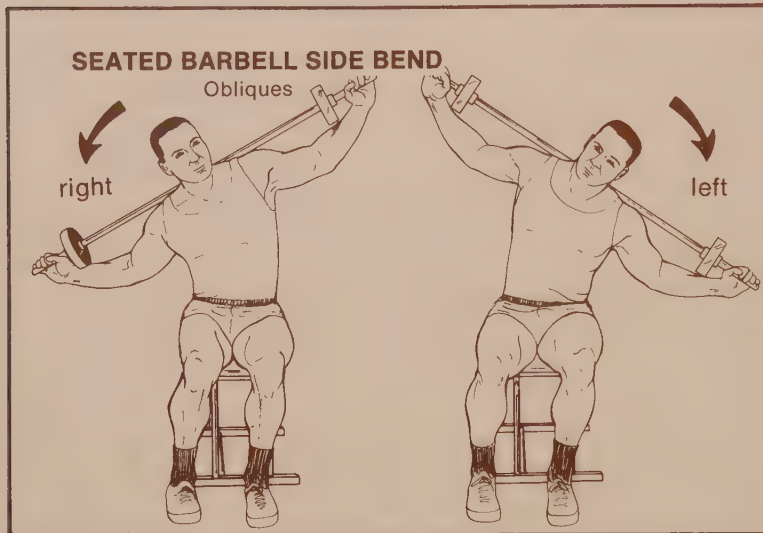
Front obliques

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in your right hand and place it on your right thigh with your palm facing in. Twist your torso to the left and keep your back straight and your head up. Inhale and bend forward as far as possible and then bend backward as far as possible as you exhale. Perform the prescribed number of repetitions and then change the weight to the left hand and repeat the movement.

▲ Dumbbell Rear Side Bend

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in your right hand and place it behind you so it is touching your right buttocks with your palm in. Twist your torso to the right and keep your back straight and your head up. Inhale and bend backward as far as possible and then bend forward as far as possible as you exhale. Perform the prescribed number of repetitions and then change the weight to the left hand and repeat the movement.





▲ Seated Barbell Side Bend

Sit on the end of a bench with your feet planted firmly on the floor. Place a light barbell on the back of your shoulders. Grasp the barbell with both hands in a comfortable position. With your back straight and your head up, inhale and bend to the right as far as possible and then bend to the left as far as possible and exhale.

▲ Seated Three-Quarter Barbell Side Bend

Sit on the end of a bench with your feet planted firmly on the floor. Place a light barbell on the back of your shoulders. Grasp the barbell with both hands in a comfortable position. Now twist your torso to the right by twisting at the waist. Inhale and bend down as far as possible and then bend backward as far as possible. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

▲ Seated Alternated Three-Quarter Barbell Side Bend

Front and rear obliques

Sit on the end of a bench with your feet planted firmly on the floor. Place a light barbell on the back of your shoulders. Grasp the barbell with both hands in a comfortable position. Now twist your torso to the right by twisting at the waist. Inhale and bend down as far as possible and then bend backward as far as possible and exhale. Now twist your torso to the left and repeat the movement. A movement to the right and left is considered one repetition.

● Seated Barbell Twist

Sit on the end of a bench with your feet planted firmly on the floor. Place a barbell on the back of your shoulders. Grasp the barbell with both hands in a comfortable position. Now, twist your torso to the right and then to the left by twisting at the waist only. Do not move your head from side to side as you perform this exercise. Be sure to keep your back straight and your head up. You inhale to the right and exhale to the left.

● STANDING BARBELL TWIST

Obliques

▲ Bent Over Barbell Twist

Stand erect with your feet about sixteen inches apart. Place a light barbell on the

back of your shoulders. Grasp the barbell with both hands in a comfortable position. Keep your back straight and your head up as you bend forward at the waist until your upper body is parallel with the floor. Inhale as you twist to the right and exhale as you twist to the left. Do not move your head from side to side while performing this exercise.

● Standing Dumbbell Torso Twist

Stand erect with your feet about sixteen inches apart. Grasp the ends of one dumbbell with both hands and place the dumbbell against your chest just below the pectorals. Keep your back straight, head up, hips and knees locked. Twist your torso to the right and to the left by twisting at the waist only. You must keep the hips and legs in a fixed position. Inhale as you twist to the right and exhale as you twist to the left.

● SEATED DUMBBELL TORSO TWIST

Obliques

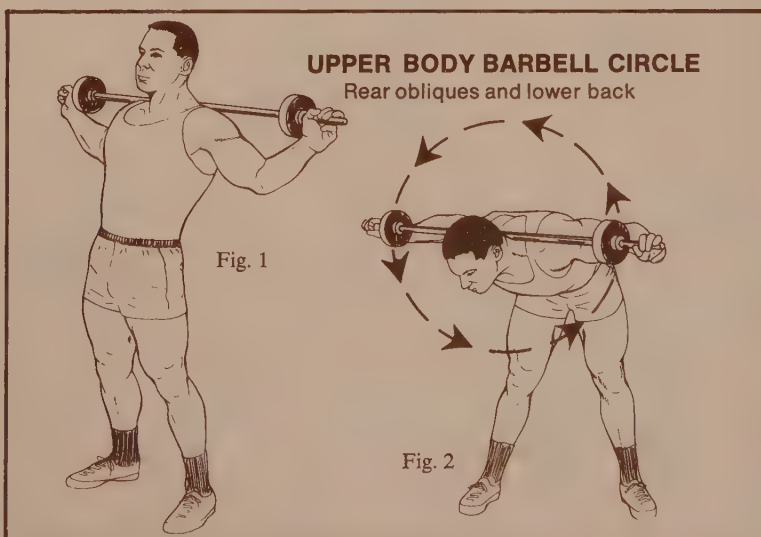
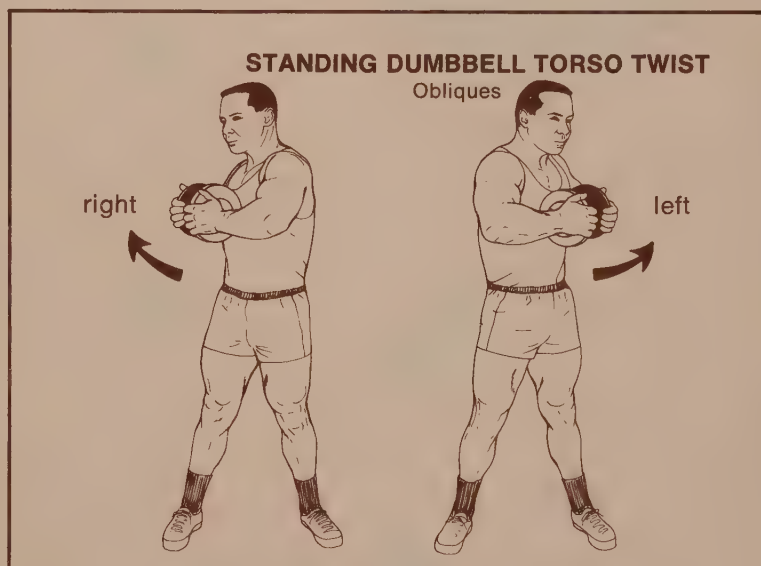
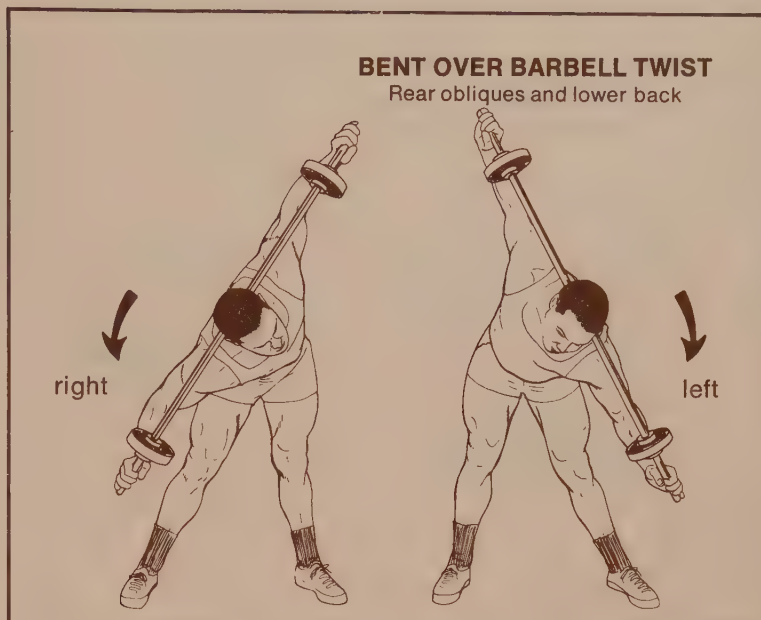
▲ Upper Body Barbell Circle

Stand erect with your feet about sixteen inches apart. Place a light barbell on the back of your shoulders. Grasp the bar with both hands using a comfortable position. Keep your back straight and your head up. Bend downward and commence to make a full circular motion with your upper body. Continue to make the circle to the right for the prescribed number of repetitions and then reverse the movement, going to the left for the same number of repetitions.

● Arms Extended Alternated Twisting Toe Touch

Rear obliques and lower back

Stand erect with your arms extended outward at shoulder height. Place your feet about twenty-four inches apart and keep your knees locked during the exercise. Exhale and bend your torso downward until your right hand crosses over and touches your left foot. Your left arm will be in a vertical position above your left shoulder. Return to starting position and inhale. Now, exhale again and bend your torso downward until your left hand crosses over and touches your right foot. Your right arm will now be in a vertical position above your right shoulder. Return to starting position and inhale. A movement to the right and one to the left constitutes a single repetition.



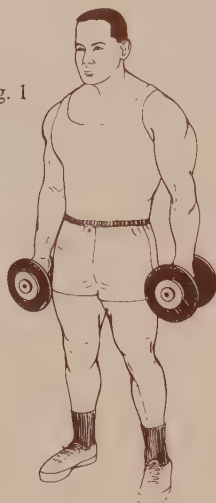
STIFF LEGGED DUMBBELL DEAD LIFT

Rear obliques



Fig. 2

Fig. 1



COMPOUND STIFF LEGGED DUMBBELL DEAD LIFT

Rear obliques and lower back

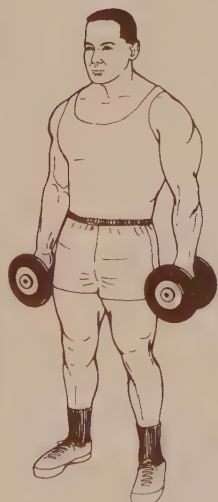


Fig. 3

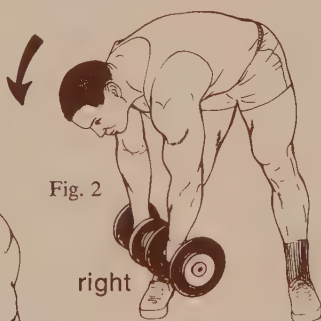


Fig. 2

right

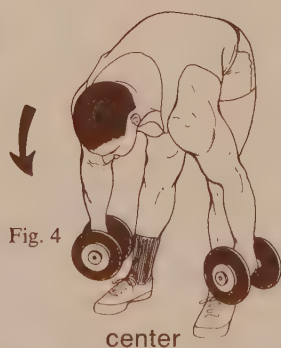


Fig. 4

center

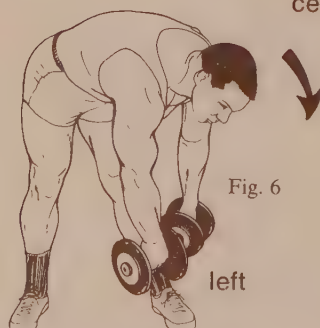


Fig. 6

left

Fig. 1



Fig. 5



▲ Stiff Legged Dumbbell Dead Lift

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in each hand with the palms facing your upper thighs. Keep your back straight and your head up while locking out your hips and knees. Exhale and bend forward at the waist until the dumbbells touch the floor just to the sides of your feet. Return to starting position and exhale.

▲ Twisting Stiff Legged Dumbbell Dead Lift

Rear obliques

Stand erect with your feet about sixteen inches apart. Grasp a light dumbbell in each hand with the palms facing the sides of your upper thighs. Twist your torso to the right by twisting at your waist while keeping your back straight, head up, hips and knees locked. Bend downward, holding the twist until the dumbbells nearly touch the floor. Return to starting position and exhale. Perform the prescribed number of repetitions on the right side and then change positions to the left side, repeating the movement.

▲ Alternating Twisting Stiff Legged Dumbbell Dead Lift

Rear obliques

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in each hand with the palms facing the sides of your upper thighs. Twist your torso to the right by twisting at your waist while keeping your back straight, head up, hips and knees locked. Bend downward, holding the twist until the dumbbells nearly touch the floor. Return to starting position and exhale. Now, change positions to the left side and perform the same movement. A movement to the right and one to the left will constitute one repetition.

▲ Compound Stiff Legged Dumbbell Dead Lift

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in each hand with your palms facing your upper thighs. Twist your torso to the right by twisting at your waist while keeping your back straight, head up, hips and knees locked. Bend downward holding the twist until the dumbbells nearly touch your right foot. Return to starting position and exhale. Now twist straight ahead and bend downward until the dumbbells nearly touch the floor to the front. Return to starting position and exhale. Now the same movement to the left side and back to starting position. The

movement goes: right, center, left, center, right, center, left, center.

▲ Stiff Legged Barbell Dead Lift

Place a barbell on the floor in front of you. With your feet about sixteen inches apart, bend at the waist and grasp the bar just to the outside of your lower legs. Keep your knees locked out and do not bend your knees while you have your back straight and your head up. Inhale and using the back muscles, stand erect with your arms locked out. Lower the weight to the floor and exhale.

▲ Twisting Stiff Legged Barbell Dead Lift

Stand erect with your feet about sixteen inches apart. Grasp a light barbell with both hands, using a medium grip. Twist your torso to the right by twisting at your waist while keeping your back straight, head up, hips and knees locked. Bend downward, holding the twist until the barbell nearly touches the floor. Return to starting position and exhale. Perform the prescribed number of repetitions on the right side and then change positions to the left side, repeating the movement.

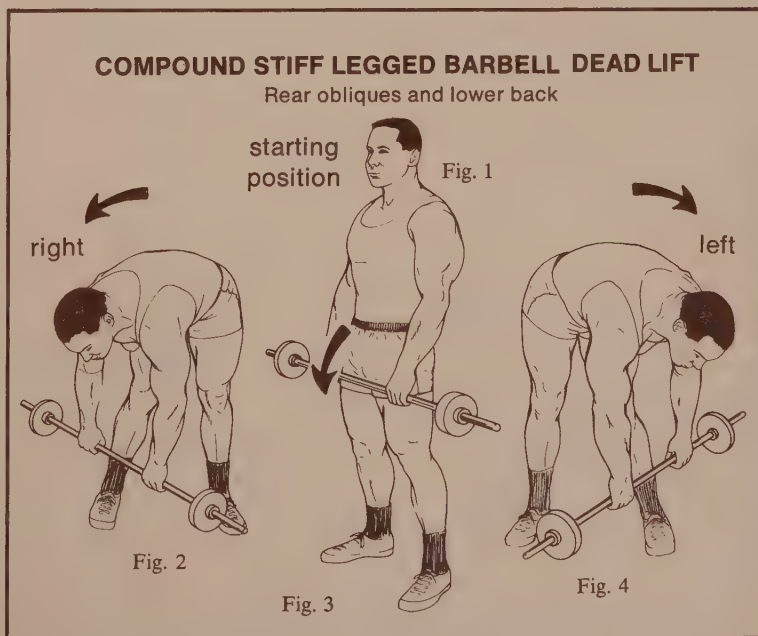
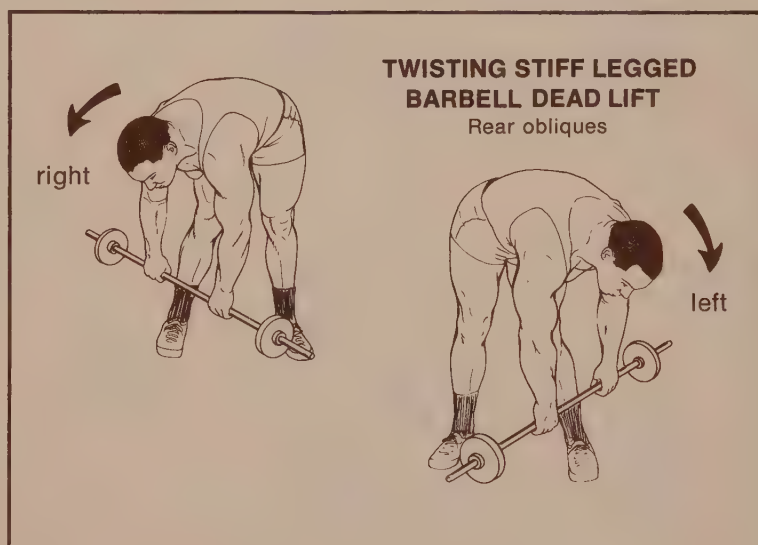
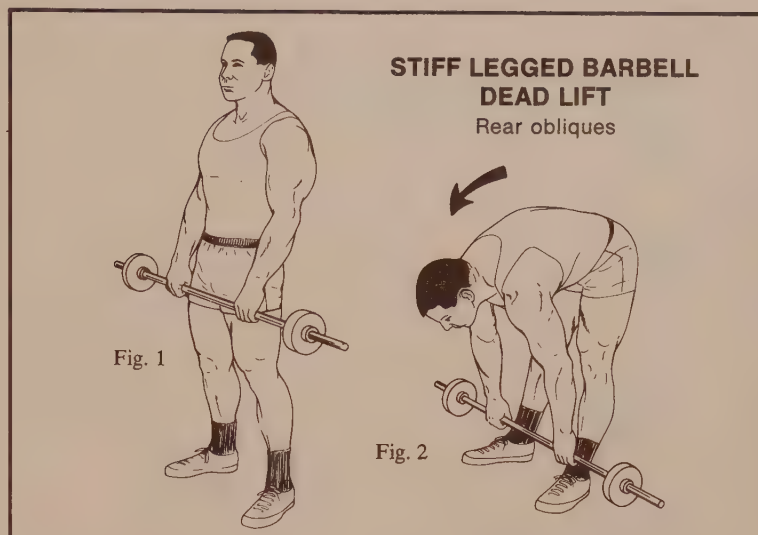
▲ Alternating Twisting Stiff Legged Barbell Dead Lift

Rear obliques

Stand erect with your feet about sixteen inches apart. Grasp a barbell with both hands, using a medium grip. Twist your torso to the right by twisting at your waist while keeping your back straight, head up, hips and knees locked. Bend downward, holding the twist until the barbell nearly touches the floor. Return to starting position and exhale. Now, change position to the left side and perform the same movement. A movement to the right and one to the left will constitute one repetition.

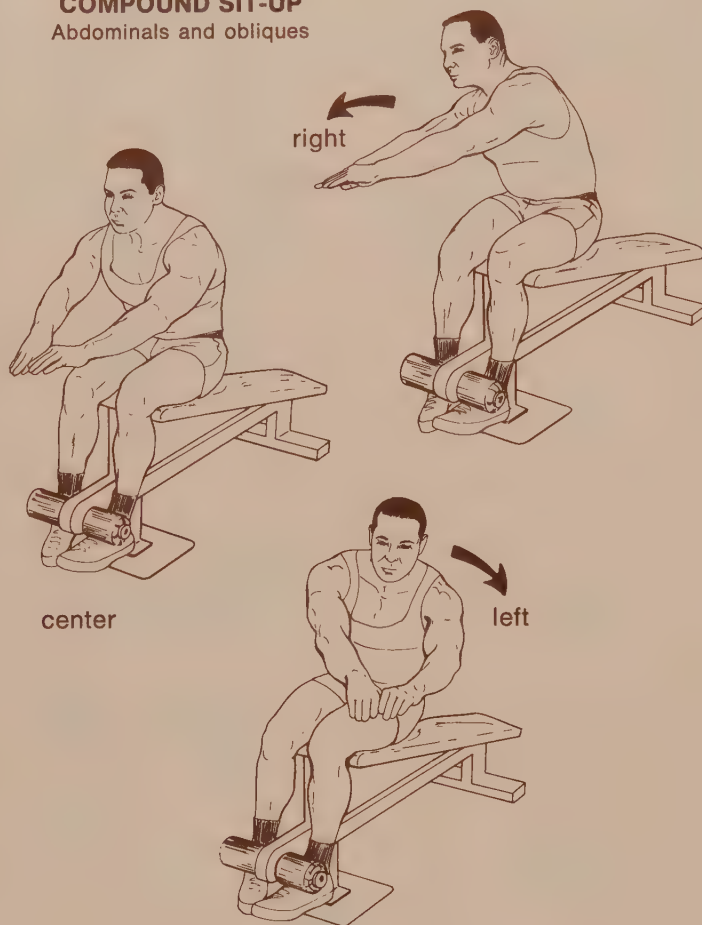
▲ Compound Stiff Legged Barbell Dead Lift

Stand erect with your feet about sixteen inches apart. Grasp a barbell with both hands using a medium grip. Twist your torso to the right by twisting at your waist while keeping your back straight, head up, hips and knees locked. Bend downward holding the twist until the barbell nearly touches the floor on your right. Return to starting position and exhale. Now twist straight ahead and downward until the barbell nearly touches the floor to the front. Return to starting position and exhale. Now the same movement to the left side and back to starting position. The movement goes: right, center, left, center, right, center, left, center.



DECLINE ARMS EXTENDED COMPOUND SIT-UP

Abdominals and obliques



■ Decline Arms Extended Compound Sit-Up

Sit on a decline bench with your knees bent and feet held in place. Lie back on the bench and put your hands behind your head at arm's length. Inhale and raise your torso up and over to the right side until your arms are over your right thigh. Exhale as you return to starting position. Now inhale and raise your torso straight up until your arms are directly over both thighs. Again exhale as you return to starting position. Now, the same movement to the left side and back to starting position. The movement goes: right, center, left, center, right, center, left, center.

● INCLINE BENCH ARMS EXTENDED COMPOUND SIT-UP

Rear obliques and abdominals

▲ ARMS EXTENDED COMPOUND SIT-UP

Abdominals and obliques

■ INCLINE ARMS EXTENDED COMPOUND SIT-UP

Upper abdominals and obliques

■ NONSUPPORTED ARMS EXTENDED COMPOUND SIT-UP

Abdominals and obliques

▲ Bend to Opposite Foot

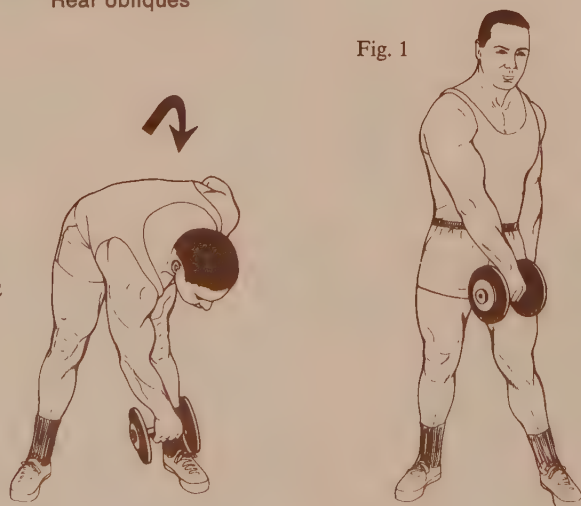
Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in your right hand with your palms facing in. Place your left hand on your upper left thigh. Place your right arm across your waist so the dumbbell will be in line with your left thigh. Exhale and bend downward until the dumbbell nearly touches your left foot. Return to starting position and exhale. Perform the prescribed number of repetitions before changing the dumbbell over to the left hand to repeat the right movement.

BEND TO OPPOSITE FOOT

Rear obliques

Fig. 1

Fig. 2



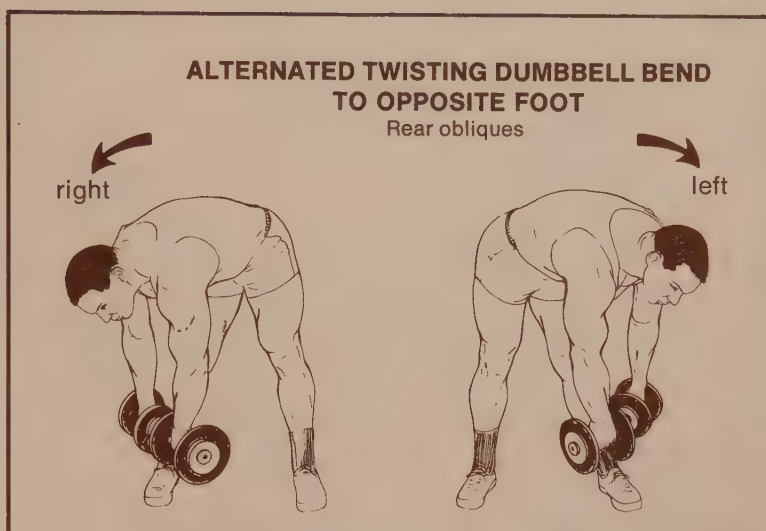
▲ Twisting Dumbbell Bend to Opposite Foot

Rear obliques

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in each hand with your palms facing in. Keep your back straight and head up as you twist your torso to the right while keeping the hips and knees locked. Draw your left hand across your hips until it is in line with your right thigh and your right hand is behind your right buttocks. Bend downward holding the twist until the dumbbells nearly touch your right foot. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

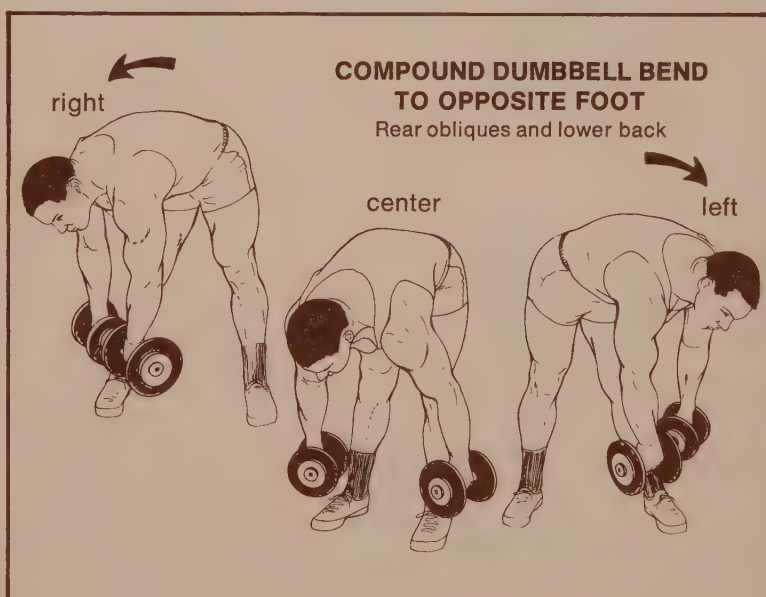
▲ Alternated Twisting Dumbbell Bend to Opposite Foot

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in each hand with your palms facing in. Keep your back straight and head up as you twist your torso to the right while keeping the hips and knees locked. Draw your left hand across your hips until it is in line with your right thigh and your right hand is behind your right buttocks. Bend downward holding the twist until the dumbbells nearly touch your right foot. Return to starting position and exhale. Now the same movement to the left side and back to starting position. A movement to the right and left is considered one repetition.



▲ Compound Dumbbell Bend to Opposite Foot

Stand erect with your feet about sixteen inches apart. Grasp a dumbbell in each hand with your palms facing in. Keep your back straight and head up as you twist your torso to the right while keeping the hips and knees locked. Draw your left hand across your hips until it is in line with your right thigh and your right hand is behind your right buttocks. Bend downward holding the twist until the dumbbells nearly touch your right foot. Return to starting position and exhale. Now twist back to the front and bend forward until the dumbbells nearly touch both feet. Return to starting position and exhale. Now the same movement to the left side and back to starting position. The movement goes: right, center, left, center, right, center, left, center.



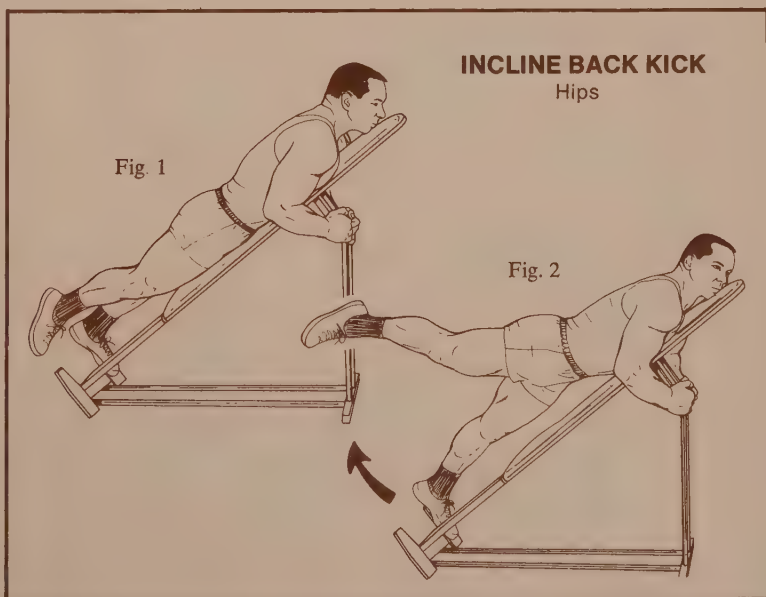
▲ Incline Back Kick

Lie face down on an incline bench. Inhale and raise your right leg straight back to the rear as far as you comfortably can. Return the leg to starting position and exhale. Be sure to keep the leg as straight as possible while performing the exercise. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

▲ Lying Back Kick

Lower back and hips

Lie face down on the floor. Inhale and raise your right leg straight back to the rear as far as you comfortably can. Return the leg to starting position and exhale. Be sure to keep the leg as straight as possible while performing the exercise. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.



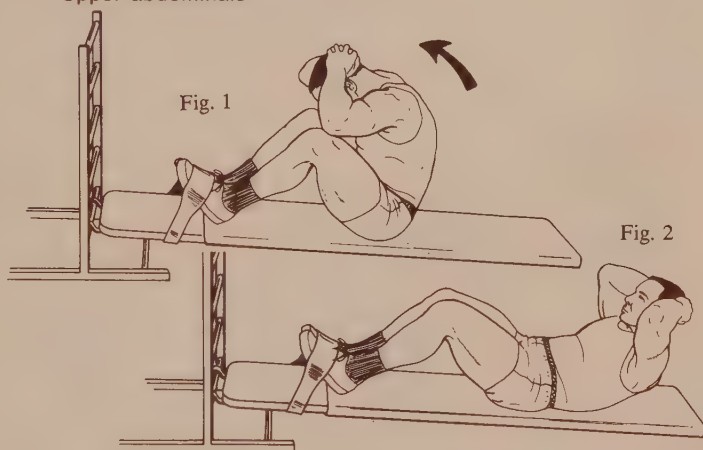
NONSUPPORTED BENT KNEE ARMS EXTENDED TWISTING SIT-UP

Abdominals and obliques



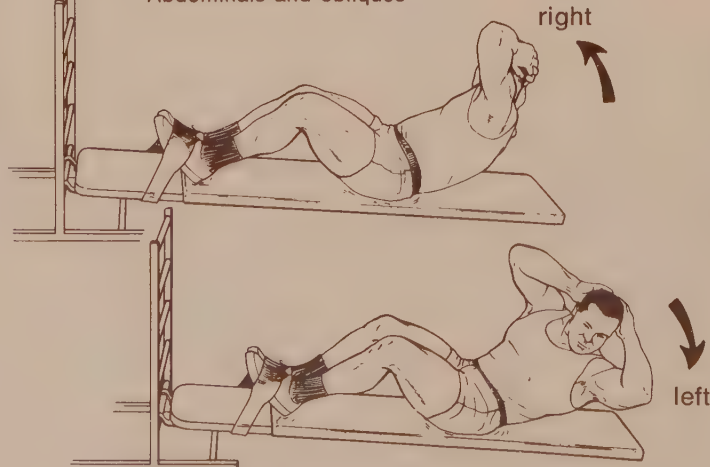
BENT KNEE SIT-UP

Upper abdominals



BENT KNEE ALTERNATED TWISTING SIT-UP

Abdominals and obliques



■ Nonsupported Bent Knee Arms Extended Twisting Sit-Up

Lie on the floor without having your feet supported. With your knees bent to about a 45° angle, place your hands behind your head at arm's length. Inhale and raise your torso up and over to the right side until your hands are above your right foot. Exhale as you return to starting position. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

● INCLINE BENCH ARMS EXTENDED BENT KNEE TWISTING SIT-UP

Rear obliques and abdominals

▲ BENT KNEE ARMS EXTENDED TWISTING SIT-UP

Abdominals and obliques

■ INCLINE ARMS EXTENDED BENT KNEE TWISTING SIT-UP

Upper abdominals and obliques

▲ Bent Knee Sit-Up

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about a 45° angle, put your hands behind your head and place your chin on your chest. This will keep a slight bow to your back. From this position, inhale and lie back until your lower back touches the board. Exhale as you return to starting position.

All exercises below are for upper abdominals.

● INCLINE BENCH BENT KNEE SIT-UP

▲ INCLINE BENT KNEE SIT-UP

■ Nonsupported Bent Knee Sit-Up

Upper abdominals

Lie on the floor without having your feet supported. With your knees bent to about a 45° angle, put your hands behind your head and place your chin on your chest. Inhale and pull your torso upward until your chest and upper thighs touch. Then return to starting position and exhale. Try to keep your feet planted firmly on the floor as you are pulling yourself up. Make the abdominal muscles do the work.

▲ Bent Knee Alternated Twisting Sit-Up

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about a 45° angle, put your hands behind your head and place your chin on your chest. Twist your upper body to the right.

Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Now, twist your upper body to the left and repeat the same movement. Two movements are considered one repetition.

● **INCLINE BENCH BENT KNEE ALTERNATED TWISTING SIT-UP**

Rear oblique and abdominal

▲ **INCLINE BENT KNEE ALTERNATED TWISTING SIT-UP**

Upper abdominals and obliques

■ **NONSUPPORTED BENT KNEE ALTERNATED TWISTING SIT-UP**

Upper abdominals and obliques

■ **Bent Knee Compound Sit-Up**

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about a 45° angle, put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Now inhale and lower your torso straight back and down until your lower back touches the board. Return to starting position and exhale. Now the same movement to the left side and back to starting position. The movement goes: right, center, left, center, right, center, left, center.

★ **NONSUPPORTED BENT KNEE COMPOUND SIT-UP**

Abdominals and obliques

▲ **Bent Knee Arms Extended Sit-Up**

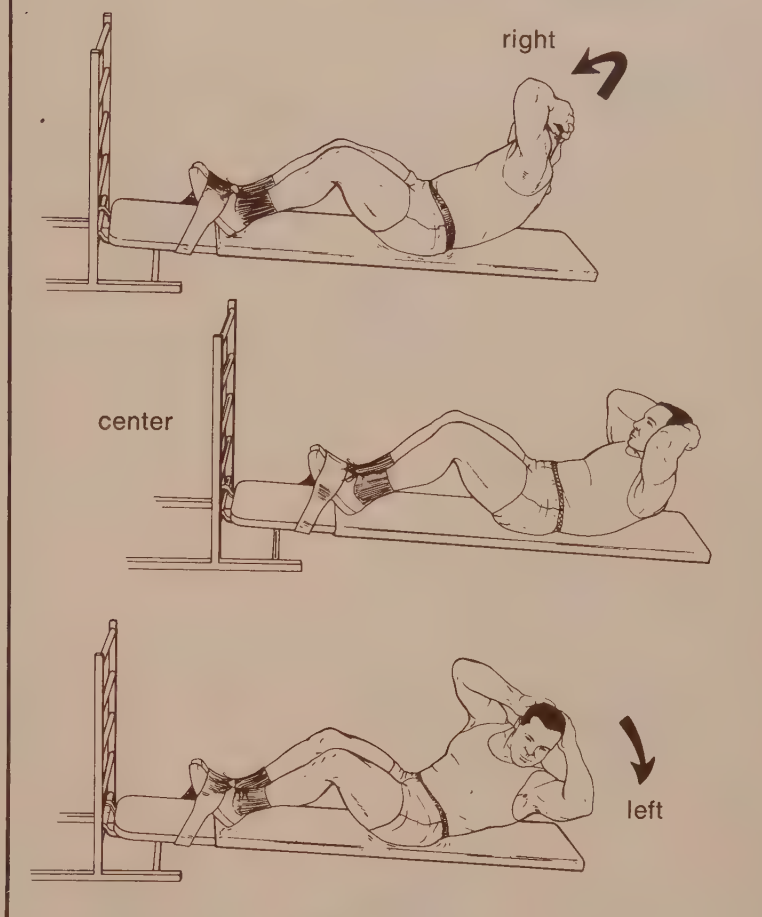
Lie down on a sit-up board and keep your feet under the strap. With your knees bent to about 45° angle, place your arms behind your head with your elbows locked out. Inhale and raise your torso up and over until your hands are above your feet. Your arms will be to the outside of your thighs. Exhale as you return to starting position.

■ **Heel High Sit-Up**

Lie on the floor and place your lower legs on top of a bench with your feet over the side. Position yourself close enough to the bench so your legs are at about a 45° angle. Put your hands behind your head and in-

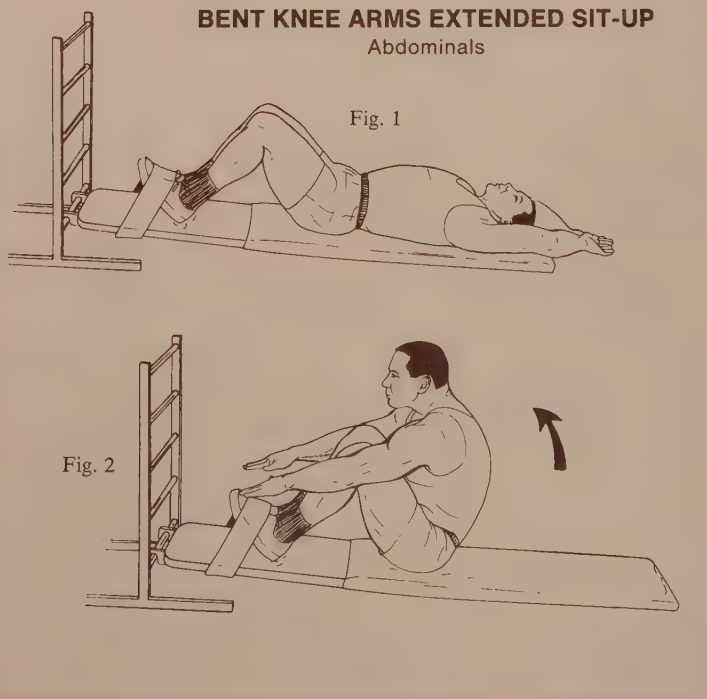
BENT KNEE COMPOUND SIT-UP

Abdominals and obliques



BENT KNEE ARMS EXTENDED SIT-UP

Abdominals



HEEL HIGH SIT-UP

Upper abdominals

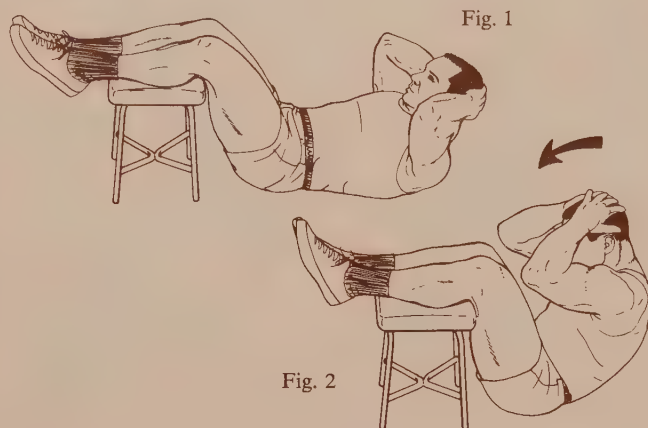


Fig. 2

HEEL HIGH TWISTING SIT-UP

Upper abdominals

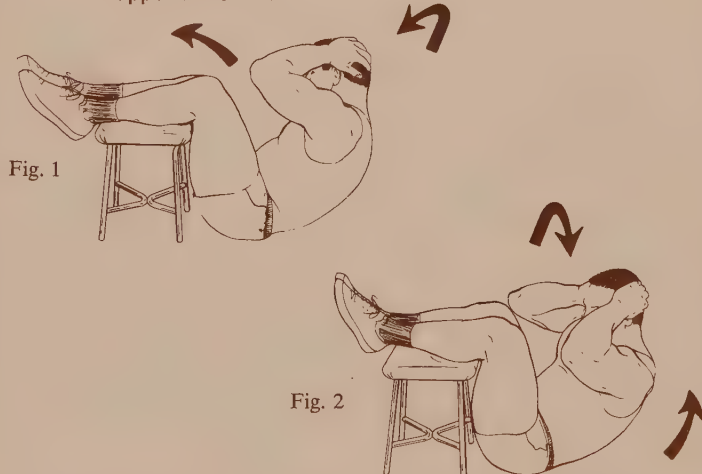


Fig. 1

Fig. 2

WEIGHTED HEEL HIGH SIT-UP

Upper abdominals

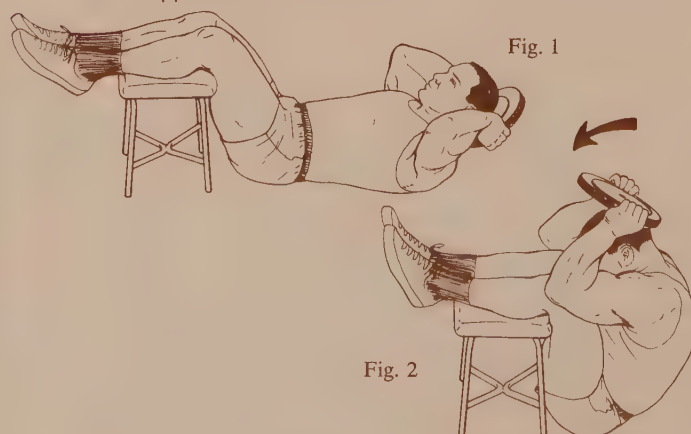


Fig. 1

Fig. 2

hale as you pull your torso up as closely to your upper thighs as possible. Then you return to starting position and exhale. Do not swing your body up and down but concentrate on the abdominals and erectors to do the work.

★ Heel High Compound Sit-Up

Upper abdominals and intercostals

Lie on the floor and place your lower legs on top of a bench with your feet over the side. Position yourself close enough to the bench so your thighs are at about a 45° angle. Put your hands behind your head and your chin on your chest. Twist your upper body to the right as you inhale and raise your torso upward as close to your thighs as possible. Return to starting position and exhale. Now twist back to a straight position and raise your torso upward as close to your thighs as possible. Return to starting position and exhale. Now the same movement to the left and back to starting position. The movement goes: right, center, left, center, right, center, left, center.

■ Heel High Twisting Sit-Up

Lie on the floor and place your lower legs on top of a bench with your feet over the side. Position yourself close enough to the bench so your thighs are at about a 45° angle. Put your hands behind your head and your chin on your chest. Twist your upper body to the right as you inhale and raise your torso upward as close to your thighs as possible. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

★ Heel High Alternated Twisting Sit-Up

Upper abdominals

Lie on the floor and place your lower legs on top of a bench with your feet over the side. Position yourself close enough to the bench so your thighs are at about a 45° angle. Put your hands behind your head and your chin on your chest. Twist your upper body to the right as you inhale and raise your torso upward as close to your thighs as possible. Return to starting position and exhale. Now twist your upper body to the left as you inhale and raise your torso upward as close to your thighs as possible. Return to starting position and exhale. A movement to the right and left is considered one repetition.

★ Weighted Heel High Sit-Up

Lie on the floor and place your lower legs on top of a bench with your feet over the side. Position yourself close enough to the bench so your legs are at about a 45° angle. Place a weight behind your head and put your chin on your chest. Inhale as you pull your torso up as closely to your upper thighs as possible. You then return to starting position and exhale. Do not swing your body up and down but concentrate on the abdominals and erectors to do the work.

★ Weighted Heel High Compound Sit-Up

Upper abdominals and intercostals

Lie on the floor and place your lower legs on top of a bench with your feet over the side. Position yourself close enough to the bench so your thighs are at about a 45° angle. Place a weight behind your head and your chin on your chest. Twist your upper body to the right as you inhale and raise your torso upward as close to your thighs as possible. Return to starting position and exhale. Now twist back to a straight position and raise your torso upward as close to your thighs as possible. Return to starting position and exhale. Now the same movement to the left and back to starting position. The movement goes: right, center, left, center, right, center, left, center.

All exercises below are for upper abdominals and intercostals.

★ WEIGHTED HEEL HIGH TWISTING SIT-UP

★ WEIGHTED HEEL HIGH ALTERNATED TWISTING SIT-UP

■ Jackknife Sit-Up

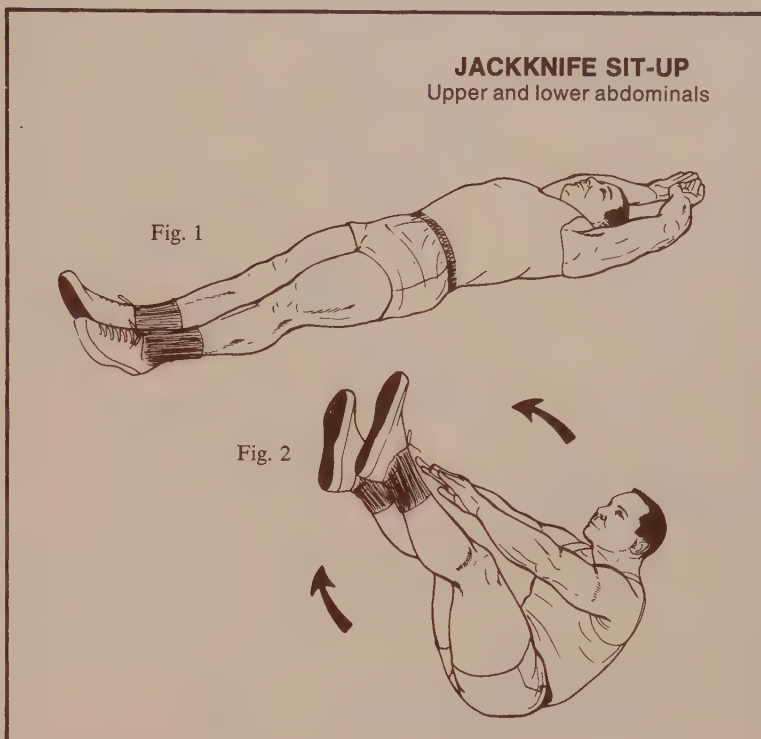
Lie on the floor in a supine position. Place your arms behind your head at arms' length. You then bend at the waist while raising your legs and arms up at the same time, coming together vertically above your waist. Lower your arms and legs back to the floor to complete the repetition. Inhale as you commence the exercise and exhale as you finish. Keep your elbows and knees locked out during the exercise.

■ Feet Against Wall Sit-Up

Lie on the floor with your body fairly close to a wall. Put your feet against the wall with a slight bend to your knees. Put your hands behind your head and inhale as you pull your torso up as close to your upper thighs as you possibly can. Return to starting position and exhale.

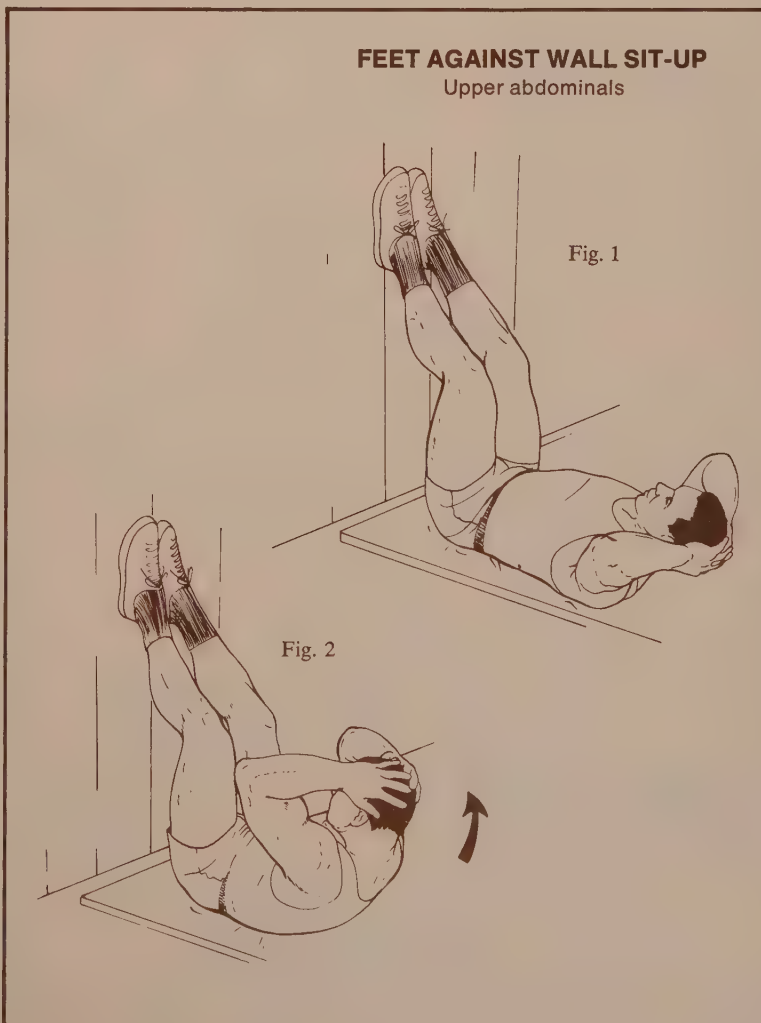
JACKKNIFE SIT-UP

Upper and lower abdominals



FEET AGAINST WALL SIT-UP

Upper abdominals



OVER A BENCH SIT-UP

Upper abdominals

Fig. 1

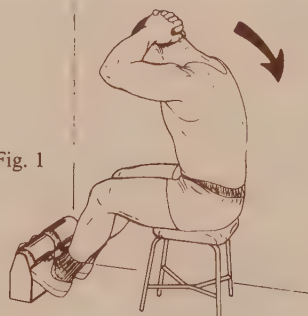
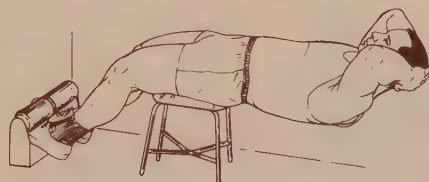


Fig. 2



OVER A BENCH TWISTING SIT-UP

Upper abdominals and obliques

Fig. 1

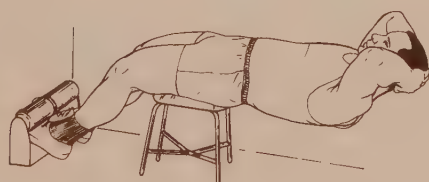
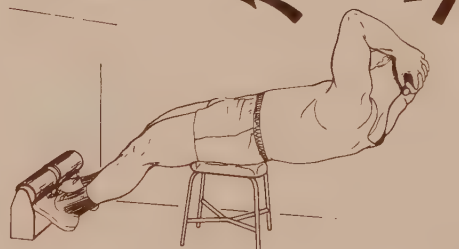


Fig. 2

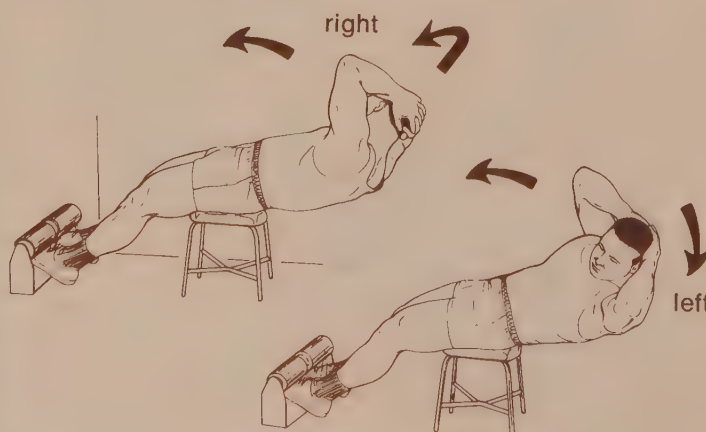


OVER A BENCH ALTERNATING TWISTING SIT-UP

Upper abdominals and obliques

right

left



▲ Over a Bench Sit-Up

Position a bench so you are able to sit on it and have an object close by so you can put your feet under it to support your weight. Sit directly on the bench and your knees should have a slight bend to them. Starting at the upright position, inhale and lower your torso backwards and down until you are just below parallel with the floor. Return to starting position and exhale.

▲ Over a Bench Twisting Sit-Up

Position a bench so you are able to sit on it and have an object close by so you can put your feet under it to support your weight. Sit directly on the bench with your knees slightly bent. Put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower torso until you are just below parallel with the floor. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your torso to the left side and repeat the number of repetitions.

■ Over a Bench Alternated Twisting Sit-Up

Position a bench so you are able to sit on it and have an object close by so you can put your feet under it to support your weight. You should sit directly on the bench and your knees should have a slight bend to them. Put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso backwards and down until you are just below parallel to the floor. Return to starting position and exhale. Now twist your upper body to the left and repeat the same movement. Two movements are considered one repetition.

■ Over a Bench Compound Sit-Up

Position a bench so you are able to sit on it and have an object close by so you can put your feet under it to support your weight. Sit directly on the bench and have your knees slightly bent. Put your hands behind your head and place your chin on your chest. From this position, twist your torso to the right and inhale while lying back until your torso is just below parallel to the floor. Return to the up position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then twist your torso to a straight posi-

tion and do a regular sit-up again and then go back to the right side, etc.

■ Weighted Over a Bench Sit-Up

Position a bench so you are able to sit on it and have an object close by so you can put your feet under it to support your weight. Sit directly on the bench and your knees should have a slight bend to them. Place a weight behind your head and put your chin on your chest. Inhale and lower your torso backwards and down until you are just below parallel with the floor. Return to starting position and exhale.

■ WEIGHTED OVER A BENCH TWISTING SIT-UP

Upper abdominals and obliques

■ WEIGHTED OVER A BENCH ALTERNATED TWISTING SIT-UP

Upper abdominals and obliques

★ Weighted Over a Bench Compound Sit-Up

Upper abdominals and obliques

Position a bench so you are able to sit on it and have an object close by so you can put your feet under it to support your weight. Sit directly on the bench and have your knees slightly bent. Place a weight behind your head and your chin on your chest. From this position, twist your torso to the right and inhale while lying back until your torso is just below parallel to the floor. Return to the up position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then twist your torso to a straight position and do a regular sit-up again and then back to the right, etc.

■ Nonsupported Sit-Up

Lie on the floor without having your feet supported. Place your hands behind your head. Inhale and pull your torso upwards in a semicircular motion until your torso is past the vertical position. You then return to starting position and exhale. Try to keep your feet from raising off the floor as you are pulling yourself up.

● INCLINE BENCH SIT-UP

Abdominals

▲ INCLINE SIT-UP

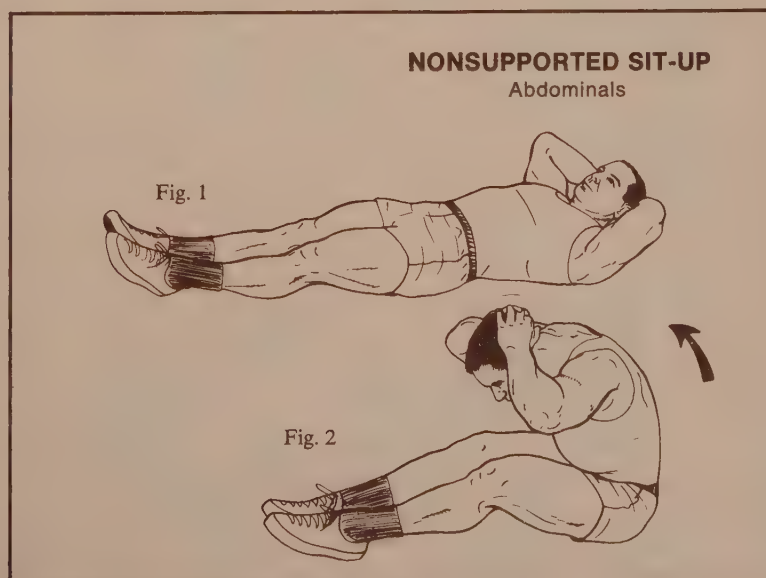
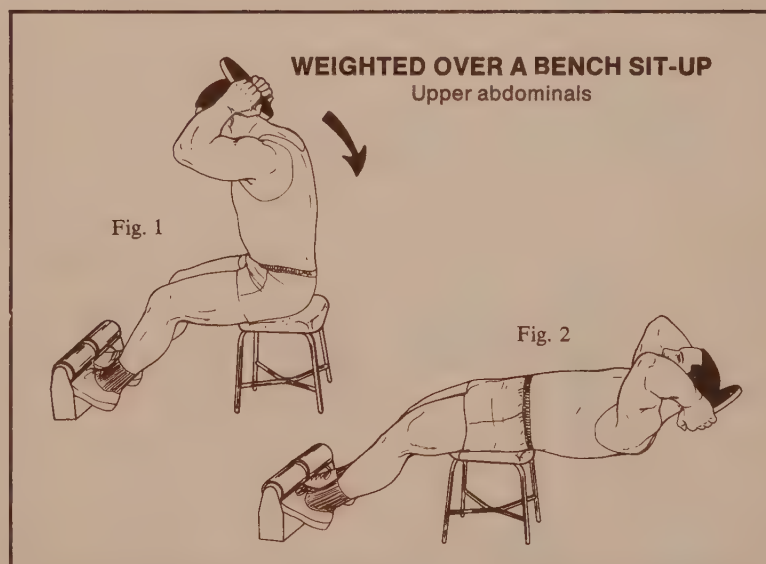
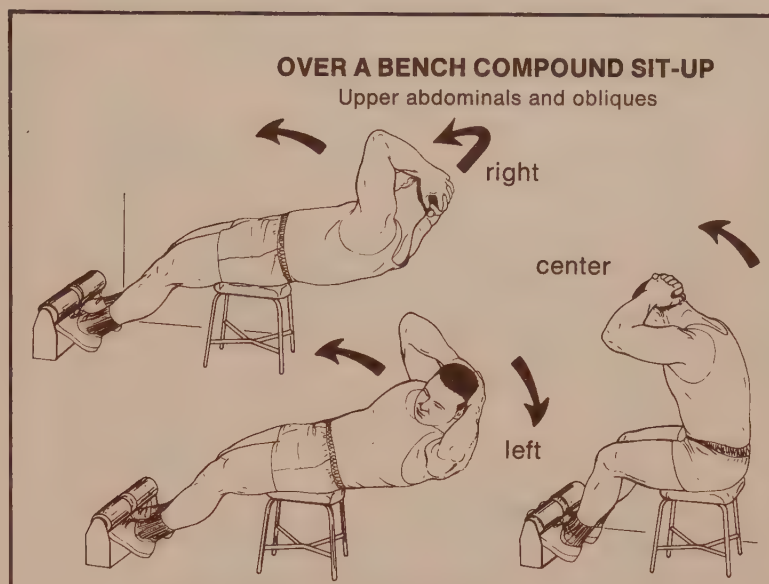
Upper abdominals

▲ DECLINE BENCH SIT-UP

Abdominals

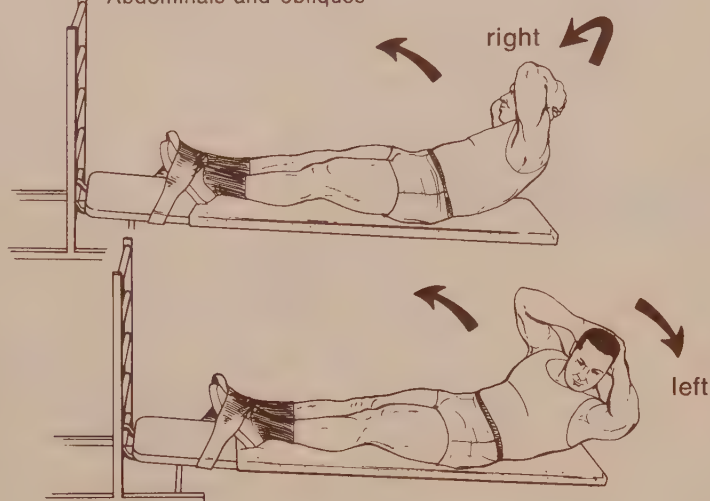
▲ SIT-UP

Abdominals



ALTERNATED TWISTING SIT-UP

Abdominals and obliques



▲ Alternated Twisting Sit-Up

Sit down on a sit-up board and hook your feet under the strap. With your knees slightly bent, put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Now, twist your upper body to the left and repeat the same movement. A movement to the right and left is considered one repetition.

● INCLINE BENCH ALTERNATED TWISTING SIT-UP

Rear oblique and abdominal

▲ INCLINE ALTERNATED TWISTING SIT-UP

Upper abdominals and obliques

■ NONSUPPORTED ALTERNATED TWISTING SIT-UP

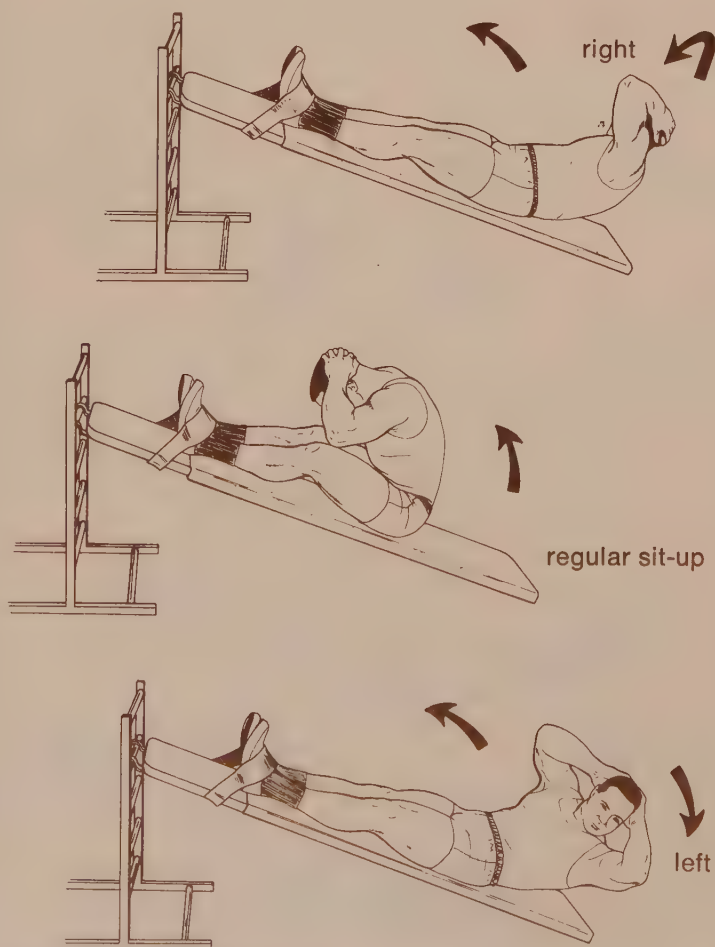
Abdominals and obliques

▲ DECLINE BENCH ALTERNATED TWISTING SIT-UP

Abdominals and obliques

INCLINE COMPOUND SIT-UP

Upper abdominals and obliques



■ Incline Compound Sit-Up

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees just slightly bent, put your hands behind your head and place your chin on your chest. From this position, twist your torso to the right and inhale while lying back until your lower back touches the board. Return to the up position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then twist your torso to a straight position and do a regular sit-up again and then go back to the right side, etc.

▲ Compound Sit-Up

Sit down on a sit-up board and hook your feet under the strap. With your knees slightly bent, put your hands behind your head and place your chin on your chest. Twist your torso to the right and inhale as you lower your torso until your lower back touches the board. Return to starting position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular sit-up. After returning to the top position, twist your torso to the left and

repeat the movement. You then twist your torso to a straight position and do a regular sit-up again and then go back to the right, etc.

▲ Decline Bench Compound Sit-Up

Abdominals and obliques

Sit on a decline bench with your knees bent and your feet held in place. Put your hands behind your head and your chin on your chest. Twist your torso to the right and inhale while lying back until your lower back touches the board. Return to the up position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then twist your torso to the straight position and do a regular sit-up again and then go back to the right side, etc.

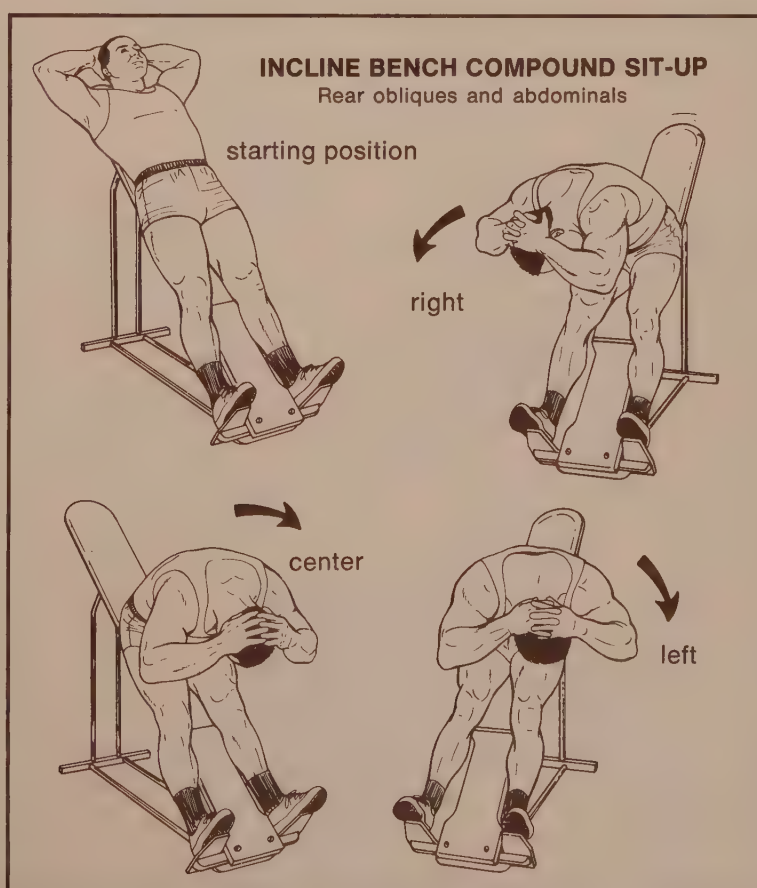
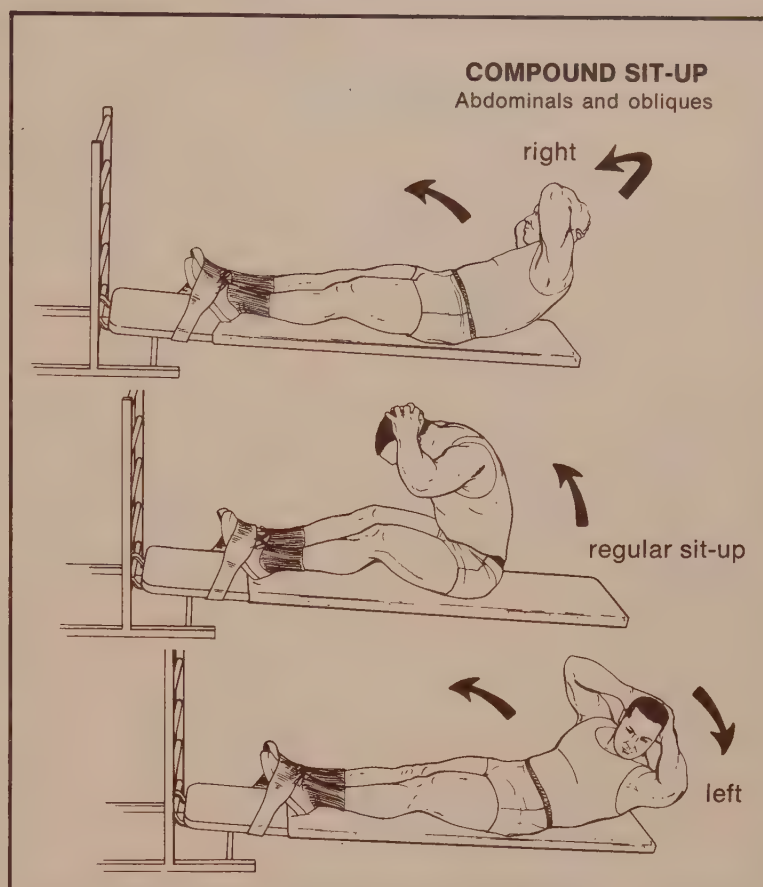
● Incline Bench Compound Sit-Up

Lie back on an incline bench and place your feet on the foot pads with your knees slightly bent. Put your hands behind your head and place your chin on your chest. From this position, twist your torso to the right and inhale while lowering your torso until your body is at about a 45° angle. Return to starting position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular incline bench sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then twist your torso to a straight position and do a regular incline bench sit-up again and then go back to the right side, etc.

■ Nonsupported Compound Sit-Up

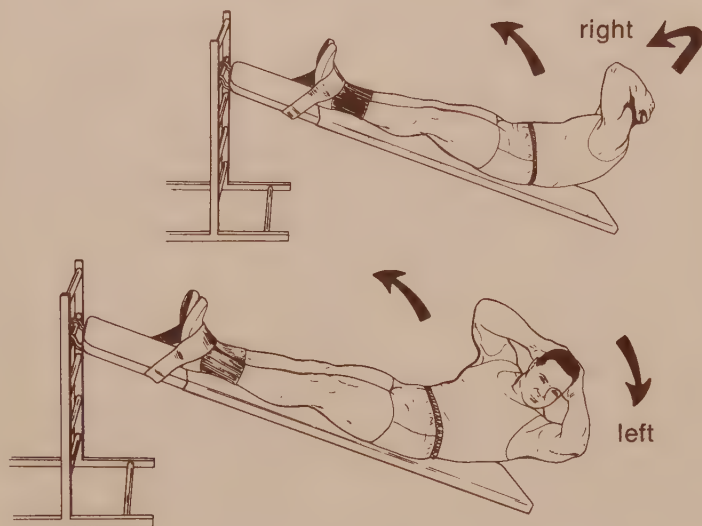
Abdominals and obliques

Sit on the floor with your knees slightly bent. Put your hands behind your head and place your chin on your chest. Twist your torso to the right and inhale as you lower your torso until your lower back touches the floor. Return to starting position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular nonsupported sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then twist your torso to a straight position and do a regular nonsupported sit-up again and then go back to the right, etc.



INCLINE TWISTING SIT-UP

Upper abdominals

**▲ Twisting Sit-Up**

Abdominals and obliques

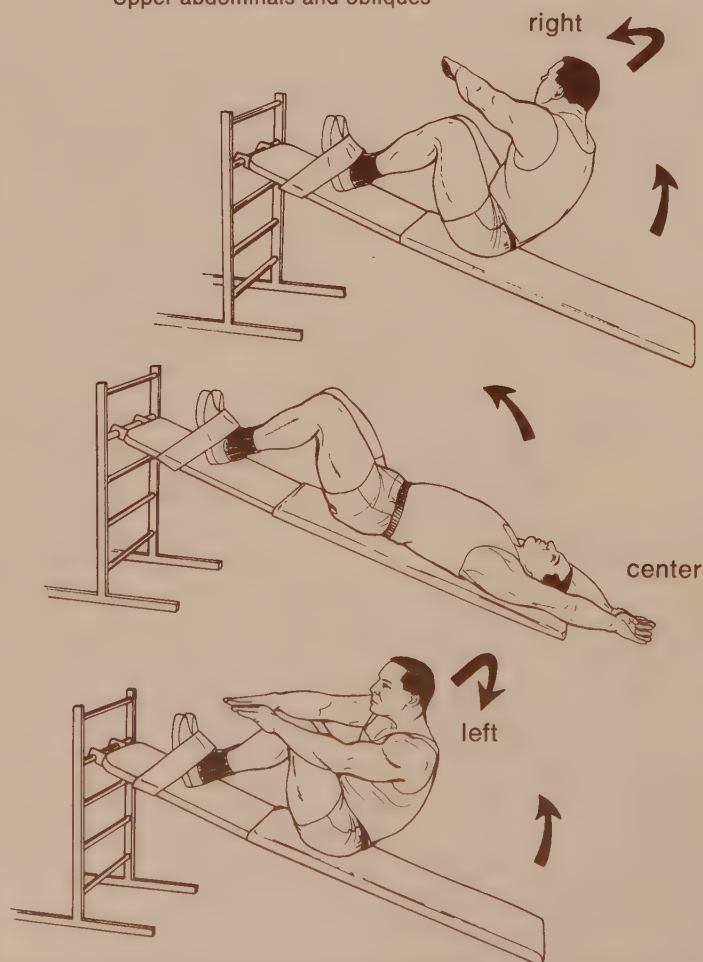
Sit down on a sit-up board and hook your feet under the strap. With your knees slightly bent, put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your torso to the left side and repeat the number of repetitions.

■ Incline Twisting Sit-Up

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees just slightly bent, put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your torso to the left side and repeat the number of repetitions.

INCLINE ARMS EXTENDED BENT KNEE COMPOUND SIT-UP

Upper abdominals and obliques

**■ Incline Arms Extended Bent Knee Compound Sit-Up**

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees bent to about a 45° angle, put your arms above your head with your elbows locked out. Twist your upper body to a slight right angle. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to a position at the top with your arms outstretched in front of you over and past your right thigh and foot and exhale. Inhale again and lower your torso down until your lower back touches the board and then come straight up with your arms outstretched in front of you to the sides of your upper thighs and past your feet and exhale. Inhale again and lower your body straight down until your lower back touches the board and then twist your upper body to a slight left angle and return to the top position with your arms outstretched in front of you over your left upper thigh and past your left foot. Back again to the middle and then to the right. The movement goes: right, center, left, center, right, center, left, center.

● Incline Bench Arms Extended Bent Knee Compound Sit-Up

Lie back on an incline bench and place your feet on the foot pads. Bend your knees to about a 45° angle. Put your arms above your head with your elbows locked out. Twist your upper body to a slight right angle. Retaining this position, inhale and lower your torso down until your outstretched arms are as close to your right foot as possible and inhale. Return to starting position and exhale. Exhale again and lower your torso straight down until your outstretched arms are as close to both feet as possible and return to starting position and inhale. Now, twist your upper body to a slight left angle. Retaining this position, inhale and lower your torso down until your outstretched arms are as close to your left foot as possible. Return to starting position and inhale. Back again to the middle and then to the right. The movement goes: right, center, left, center, right, center, left, center.

▲ Bent Knee Arms Extended Compound Sit-Up

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about a 45° angle, put your arms above your head with your elbows locked out. Twist your upper body to a slight right angle. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to a position at the top with both arms outstretched in front of you over and past your right upper thigh and foot and then exhale. Inhale again and lower your torso down until your lower back touches the board and then come straight up with your arms outstretched in front of you to the sides of your upper thighs and past your feet and exhale. Inhale again and lower your body straight down until your lower back touches the board and then twist your upper body to a slight left angle and return to the top position with your arms outstretched in front of you over your left upper thigh and past your left foot. Back again to the middle and then to the right. The movement goes: right, center, left, center, right, center, left, center.

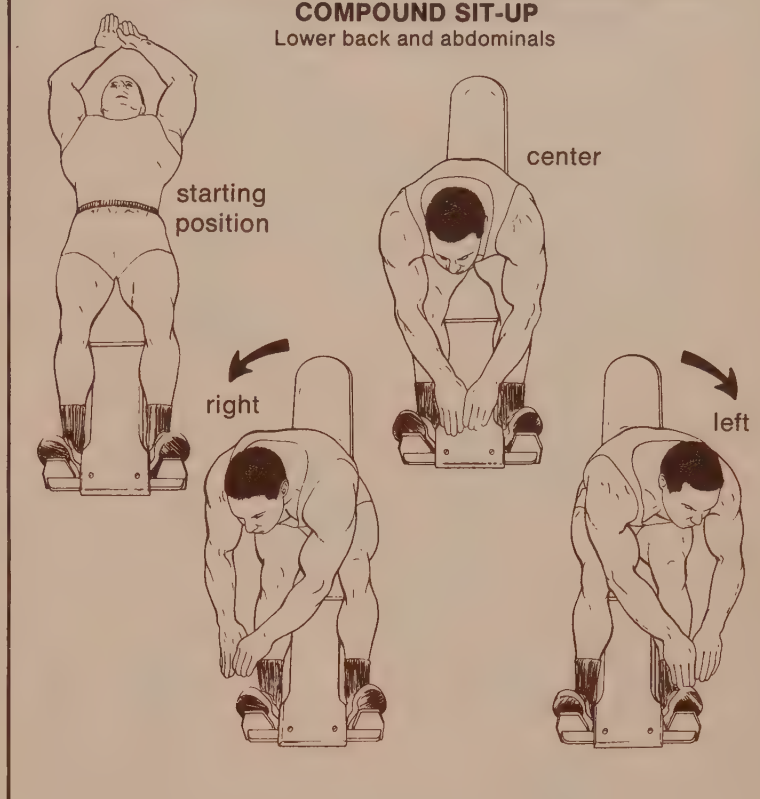
★ Nonsupported Bent Knee Arms Extended Compound Sit-Up

Upper abdominals and obliques

Sit on the floor and bend your knees to about a 45° angle. Put your arms above your head with your elbows locked out. Twist your upper body to a slight right

INCLINE BENCH ARMS EXTENDED BENT KNEE COMPOUND SIT-UP

Lower back and abdominals



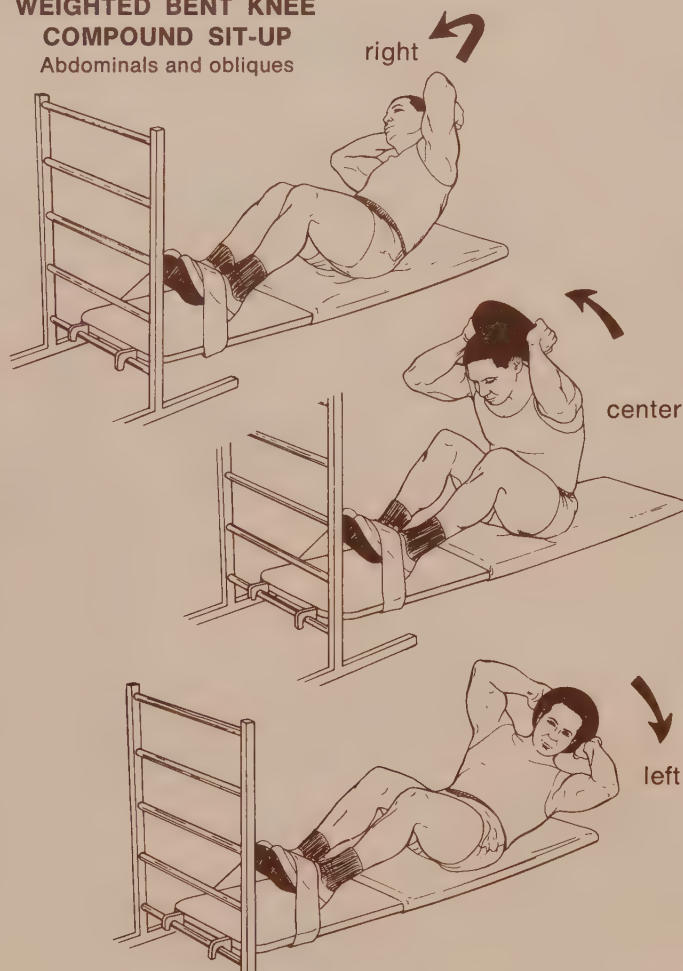
BENT KNEE ARMS EXTENDED COMPOUND SIT-UP

Abdominals and obliques



WEIGHTED BENT KNEE COMPOUND SIT-UP

Abdominals and obliques



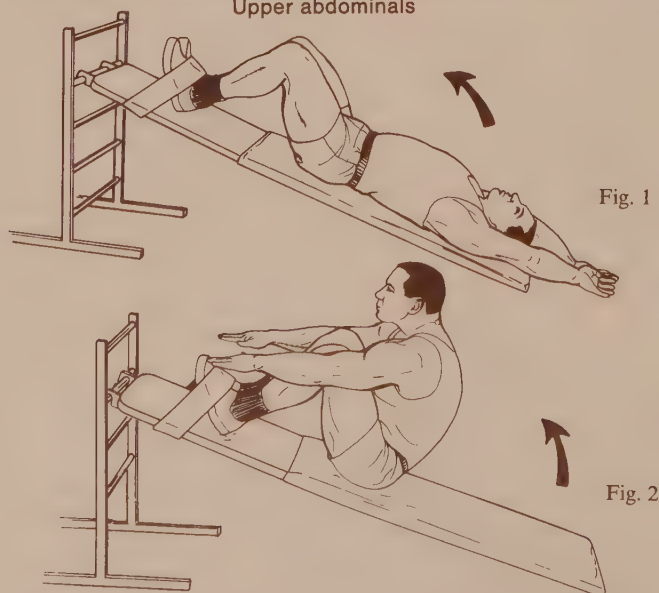
angle. Retaining this position, inhale and lower your torso down until your lower back touches the floor. Return to a position at the top with both arms outstretched in front of you over and past your right upper thigh and foot and then exhale. Inhale again and lower your torso down until your lower back touches the floor and then come straight up with your arms outstretched in front of you to the sides of your upper thighs and past your feet and exhale. Inhale again and lower your body straight down until your lower back touches the floor and then twist your upper body to a slight left angle and return to the top position with your arms outstretched in front of you over your left upper thigh and past your left foot. Back again to the middle and then to the right. The movement goes: right, center, left, center, right, center, left, center.

■ **Weighted Bent Knee Compound Sit-Up**

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about a 45° angle, place a weight behind your head and your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso until your lower back touches the board. Return to starting position and exhale. Now inhale and lower your torso straight back and down until your lower back touches the board. Return to starting position and exhale. Now the same movement to the left side and back to starting position. The movement goes: right, center, left, center, right, center, left, center.

INCLINE ARMS EXTENDED BENT KNEE SIT-UP

Upper abdominals



★ **WEIGHTED INCLINE BENT KNEE COMPOUND SIT-UP**

Upper abdominals and obliques

★ **NONSUPPORTED WEIGHTED BENT KNEE COMPOUND SIT-UP**

Abdominals and obliques

▲ **Incline Arms Extended Bent Knee Sit-Up**

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees bent to about a 45° angle, place your arms above your head with your elbows locked out. Inhale and lower your torso down until your lower back touches the board. Now raise your torso straight up until your outstretched arms are above your feet and exhale. Your arms will be to the outside on your thighs at the top position.

▲ **Incline Bench Arms Extended Bent Knee Sit-Up**

Lie back on an incline bench and place

your feet on the foot pads. Bend your knees to about a 45° angle. Place your arms behind your head with your elbows locked out. Inhale and lower your torso down until your upper body is below parallel with the floor. Try to touch your toes with your hands if possible. Return to starting position and exhale.

■ Nonsupported Bent Knee Arms Extended Sit-Up

Abdominals

Sit on the floor and bend your knees to about a 45° angle. Place your arms above your head with your elbows locked out. Inhale and lower your torso down until your lower back touches the floor. Now raise your torso straight up until your outstretched arms are above your feet and exhale. Your arms will be to the outside of your thighs at the top position.

INCLINE BENCH ARMS EXTENDED BENT KNEE SIT-UP

Lower back and abdominals

Fig. 1



Fig. 2



▲ Incline Arms Extended Twisting Sit-Up

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees just slightly bent, lie back on the sit-up board and place your hands behind your head at arm's length. Raise up to the right side with your hands over your head until your hands touch your right foot. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

● INCLINE BENCH ARMS EXTENDED TWISTING SIT-UP

Rear obliques and abdominals

▲ ARMS EXTENDED TWISTING SIT-UP

Abdominals and obliques

▲ DECLINE BENCH ARMS EXTENDED TWISTING SIT-UP

Abdominals and obliques

■ NONSUPPORTED ARMS EXTENDED TWISTING SIT-UP

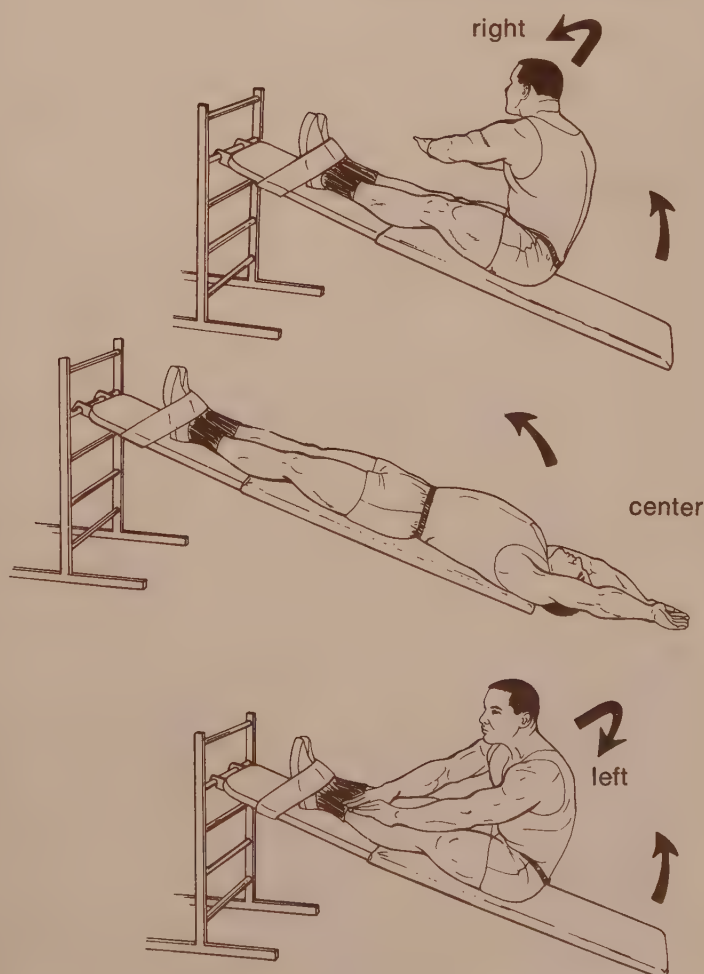
Abdominals and obliques

▲ Incline Arms Extended Alternated Twisting Sit-Up

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high end and place them under the strap. With your knees just slightly bent, lie back on the sit-up board and place your hands behind your head at arm's length. Raise up

INCLINE ARMS EXTENDED TWISTING SIT-UP

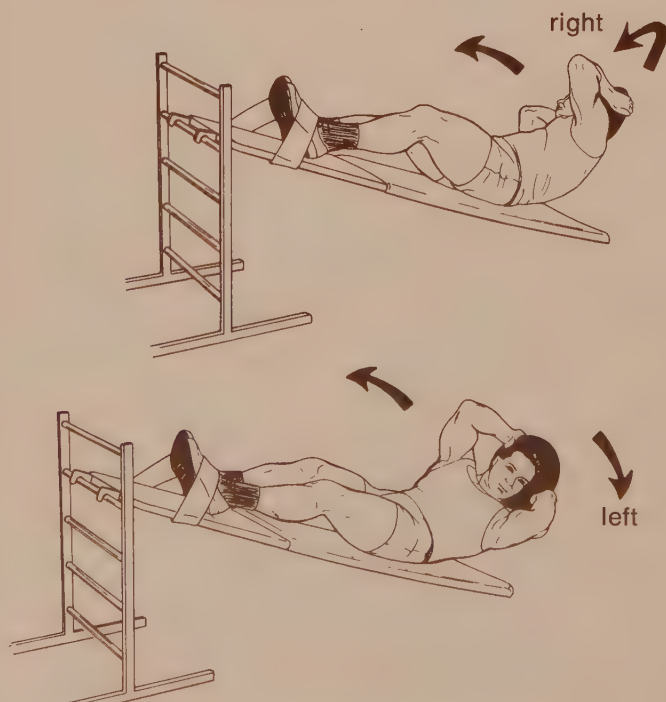
Upper abdominals and obliques



**INCLINE ARMS EXTENDED
ALTERNATED TWISTING SIT-UP**
Upper abdominals and obliques



**WEIGHTED INCLINE ALTERNATED
TWISTING SIT-UP**
Upper abdominals and obliques



to the right side with your hands over your head until your hands touch your right foot. Return to starting position and exhale. Now inhale and raise up to the left side with your hands over your head until your hands touch your left foot. Return to starting position and exhale. Two movements are considered one repetition.

● **INCLINE BENCH ARMS EXTENDED
ALTERNATED TWISTING SIT-UP**
Rear obliques and abdominals

▲ **ARMS EXTENDED ALTERNATED
TWISTING SIT-UP**
Abdominals and obliques

▲ **DECLINE ARMS EXTENDED
ALTERNATED TWISTING SIT-UP**
Abdominals and obliques

■ **NONSUPPORTED ARMS EXTENDED
ALTERNATED TWISTING SIT-UP**
Abdominals and obliques

★ **Weighted Incline Alternated Twisting
Sit-Up**

Position a sit-up board on a 25-30° angle. Sit on the board with your feet at the high end and place them under the strap. With your knees just slightly bent, place a weight behind your head and your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Now, twist your upper body to the left and repeat the same movement. A movement to the right and left is considered one repetition.

▲ **Weighted Alternated Twisting Sit-Up**
Abdominals and obliques

Sit down on a sit-up board and hook your feet under the strap with your knees just slightly bent. Place a weight behind your head and put your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Now, twist your upper body to the left and repeat the same movement. Two movements are considered one repetition.

▲ **WEIGHTED DECLINE BENCH
ALTERNATED TWISTING SIT-UP**
Abdominals and obliques

★ **WEIGHTED NONSUPPORTED
ALTERNATED TWISTING SIT-UP**
Abdominals and obliques

★ **Weighted Decline Bench Twisting Sit-Up**
Sit on a decline bench with your knees bent and feet held in place. Place a weight be-

hind your head and put your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso until your lower back touches the board. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

★ **WEIGHTED TWISTING SIT-UP**

Abdominals and obliques

★ **WEIGHTED INCLINE TWISTING SIT-UP**

Upper abdominals and obliques

★ **WEIGHTED NONSUPPORTED TWISTING SIT-UP**

Abdominals and obliques

■ **Weighted Decline Bench Compound Sit-Up**

Abdominals and obliques

Sit on a decline bench with your knees bent and your feet held in place. Place a weight behind your head and your chin on your chest. Twist your torso to the right and inhale while lying back until your lower back touches the board. Return to the up position and exhale. Now twist your torso back to a straight position and inhale as you do a regular sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then twist your torso to the straight position and do a regular sit-up again and then back to the right side, etc.

▲ **Decline Bench Twisting Sit-Up**

Sit on a decline bench with your knees bent and your feet held in place. Put your hands behind your head and your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso until your lower back touches the board. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your torso to the left side and repeat the number of repetitions.

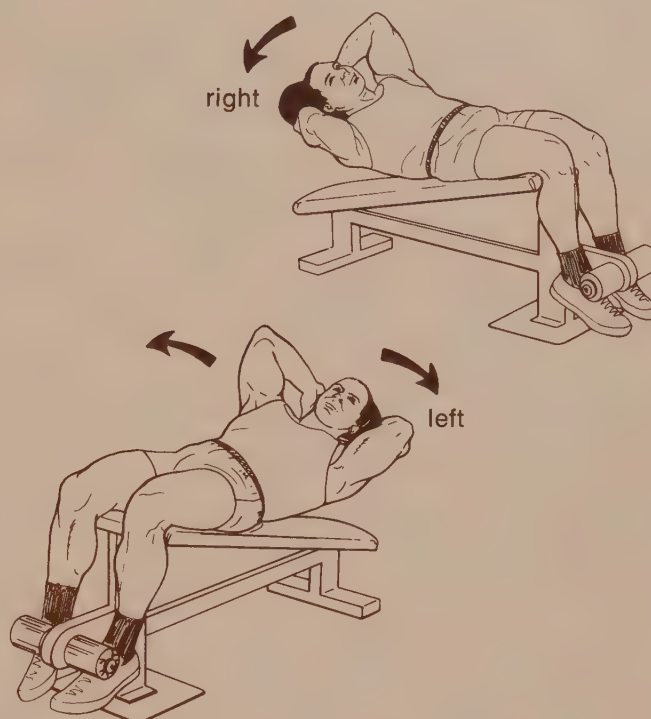
■ **Nonsupported Twisting Sit-Up**

Abdominals and obliques

Sit on the floor with your knees slightly bent. Put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the floor. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your torso to the left side and repeat the number of repetitions.

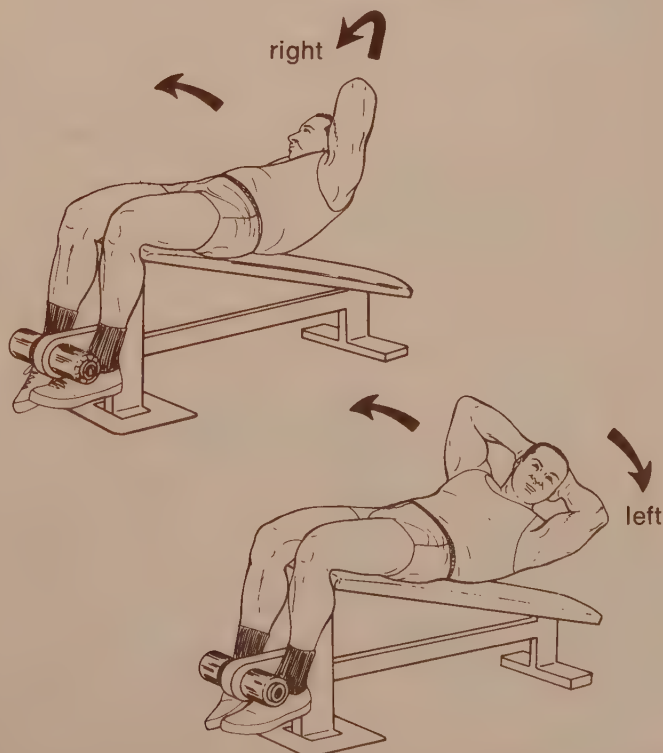
WEIGHTED DECLINE BENCH TWISTING SIT-UP

Abdominals and obliques



DECLINE BENCH TWISTING SIT-UP

Abdominals and obliques



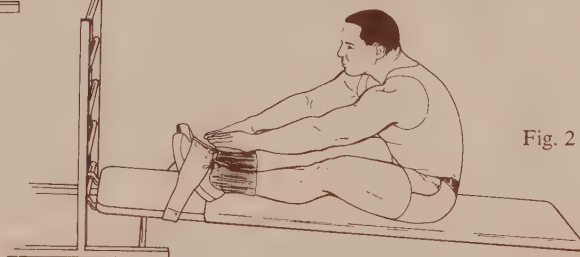
ARMS EXTENDED SIT-UP

Upper abdominals

Fig. 1



Fig. 2

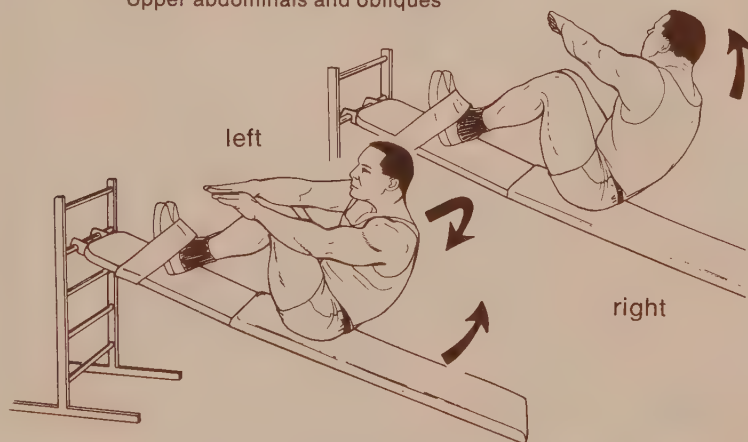


INCLINE ARMS EXTENDED BENT KNEE ALTERNATED TWISTING SIT-UP

Upper abdominals and obliques

left

right



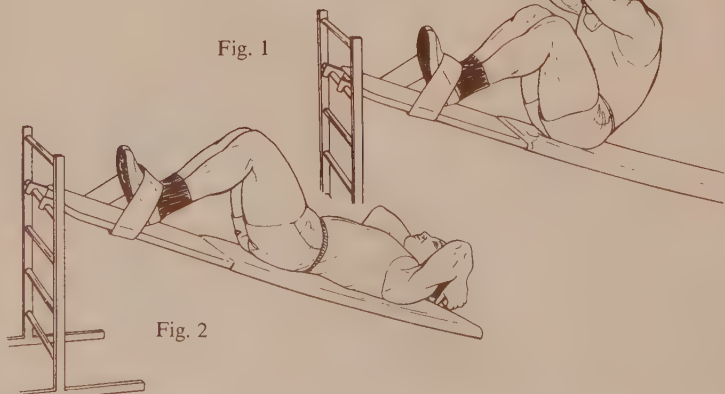
WEIGHTED INCLINE BENT KNEE SIT-UP

Upper abdominals

Fig. 1



Fig. 2



● Arms Extended Sit-Up

Sit down on a sit-up board and hook your feet under the strap. With your knees just slightly bent, lie back on the sit-up board and put your hands behind your head at arm's length. Raise up with your hands over your head and touch your feet with your hands. You then lower yourself back to starting position, keeping your arms extended. You will exhale as you raise up and inhale as you lie back.

▲ Incline Arms Extended Bent Knee Alternated Twisting Sit-Up

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees bent to about a 45° angle, lie back on the sit-up board and place your hands behind your head at arm's length. Raise up to the right side with your hands over your head until your hands are above your right foot. Return to starting position and exhale. Now inhale and raise up to the left side with your hands over your head until your hands are above your left foot. Return to starting position and exhale. Two movements are considered one repetition.

■ NONSUPPORTED BENT KNEE ALTERNATED TWISTING SIT-UP

Upper abdominals and obliques

■ Weighted Incline Bent Knee Sit-Up

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high end and place them under the strap. With your knees bent to about a 45° angle, place a weight behind your head and your chin on your chest. From this position, inhale and lie back until your lower back touches the board. Exhale as you return to starting position.

★ WEIGHTED BENT KNEE SIT-UP

Abdominals

★ NONSUPPORTED WEIGHTED BENT KNEE SIT-UP

Abdominals

■ Incline Bench Bent Knee Compound Sit-Up

Lower back, rear obliques and abdominals

Lie back on an incline bench and place your feet on the foot pads. Bend your knees

to about a 45° angle. Put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your upper body is below parallel with the floor. Return to starting position and exhale. Now inhale and lower your torso straight down until your upper body is below parallel with the floor. Return to starting position and exhale. Now the same movement to the left side and back to starting position. The movement goes: right, center, left, center, right, center, left, center.

● **INCLINE BENCH ARMS EXTENDED BENT KNEE ALTERNATED TWISTING SIT-UP**

Rear obliques and abdominals

▲ **BENT KNEE ARMS EXTENDED ALTERNATED TWISTING SIT-UP**

Abdominals and obliques

■ **NONSUPPORTED BENT KNEE ARMS EXTENDED ALTERNATED TWISTING SIT-UP**

Abdominals and obliques

● **Incline Bent Knee Compound Sit-Up**

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees bent to about a 45° angle, put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Now inhale and lower your torso straight back and down until your lower back touches the board. Return to starting position and exhale. Now the same movement to the left side and back to starting position. The movement goes: right, center, left, center, right, center, left, center.

● **Incline Bench Arms Extended Sit-Up**

Lie on an incline bench with your knees locked out and your arms held above your head. Keeping your elbows locked out, bend at the waist and lower your torso as closely to your upper thighs as possible, trying to touch your feet with your extended arms. Return to starting position to complete the exercise. You will exhale as you lower yourself and inhale as you return to starting position.

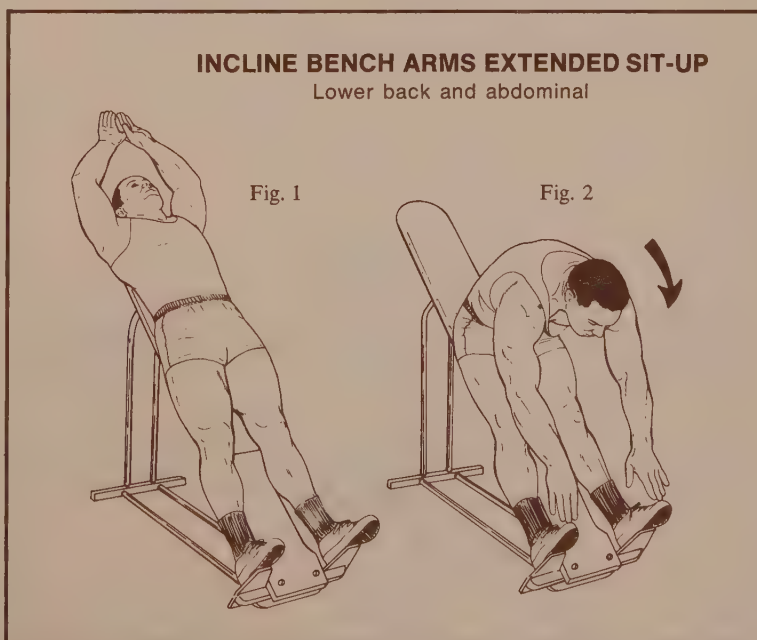
INCLINE BENT KNEE COMPOUND SIT-UP

Upper abdominals and obliques



INCLINE BENCH ARMS EXTENDED SIT-UP

Lower back and abdominal



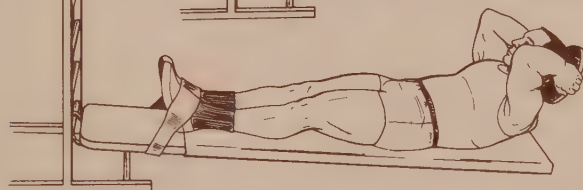
WEIGHTED SIT-UP

Abdominals

Fig. 1



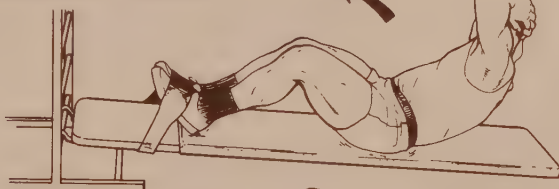
Fig. 2



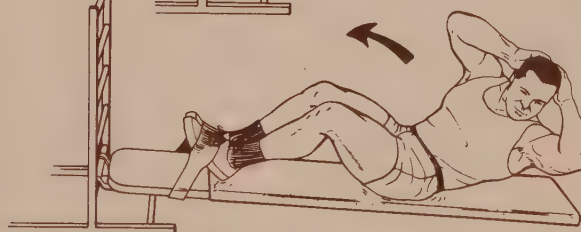
BENT KNEE TWISTING SIT-UP

Abdominals and obliques

right



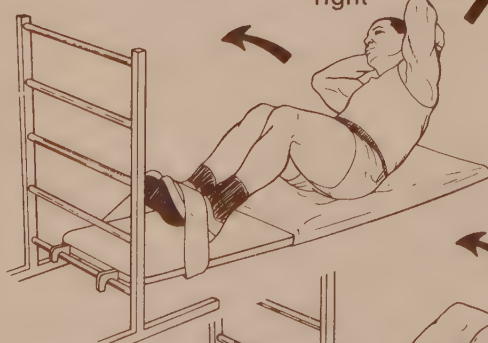
left



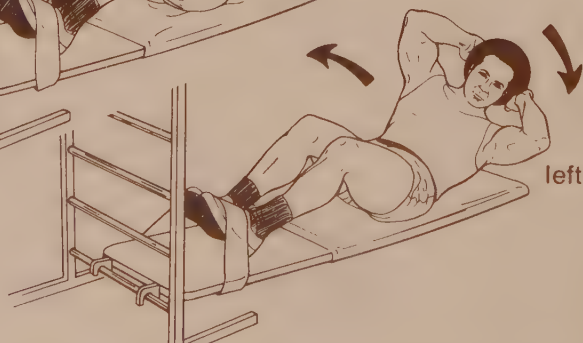
WEIGHTED BENT KNEE TWISTING SIT-UP

Abdominals and obliques

right



left



★ **Weighted Sit-Up**

Sit down on a sit-up board and hook your feet under the strap, with your knees slightly bent. Place a weight behind your head and put your chin on your chest. Inhale and lie back until your lower back touches the board. Do not lie completely back but keep tension on the abdominal muscles. Return to starting position and exhale.

■ **Weighted Decline Bench Sit-Up**

Abdominals

Sit on a decline bench with your knees bent and feet held in place. Place a weight behind your head and put your chin on your chest. Inhale and lie back until your lower back touches the board. Return to starting position and exhale. Keep the abdominal muscles tensed during the exercise.

★ **INCLINE WEIGHTED SIT-UP**

Upper abdominals

★ **NONSUPPORTED WEIGHTED SIT-UP**

Abdominals

▲ **Bent Knee Twisting Sit-Up**

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about a 45° angle, put your hands behind your head and place your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your torso to the left side and repeat the number of repetitions.

● **INCLINE BENCH BENT KNEE TWISTING SIT-UP**

Rear obliques and abdominals

▲ **INCLINE BENT KNEE TWISTING SIT-UP**

Upper abdominals and obliques

■ **NONSUPPORTED BENT KNEE TWISTING SIT-UP**

Abdominals and obliques

★ **Weighted Bent Knee Twisting Sit-Up**

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about a 45° angle, place a weight behind your head and your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your tor-

so down until your lower back touches the board. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your torso to the left side and repeat the number of repetitions.

★ **INCLINE WEIGHTED BENT KNEE TWISTING SIT-UP**

Upper abdominals and obliques

★ **NONSUPPORTED WEIGHTED BENT KNEE TWISTING SIT-UP**

Abdominals and obliques

★ **Weighted Bent Knee Alternated Twisting Sit-Up**

Sit down on a sit-up board and hook your feet under the strap. With your knees bent to about 45° angle, place a weight behind your head and your chin on your chest. Twist your upper body to the right. Retaining this position, inhale and lower your torso down until your lower back touches the board. Return to starting position and exhale. Now, twist your upper body to the left and repeat the same movement. A movement to the right and left is considered one repetition.

★ **WEIGHTED INCLINE BENT KNEE ALTERNATED TWISTING SIT-UP**

Abdominals and obliques

★ **NONSUPPORTED WEIGHTED BENT KNEE ALTERNATED TWISTING SIT-UP**

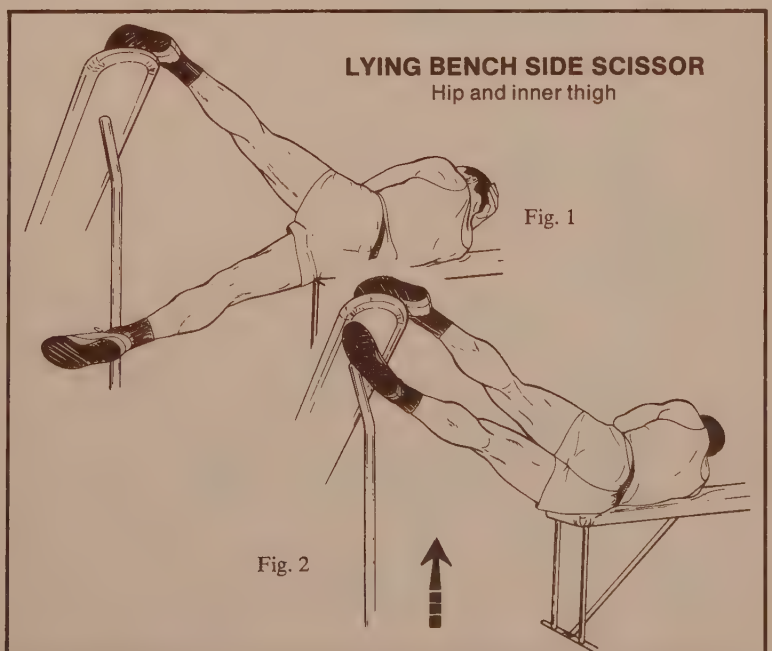
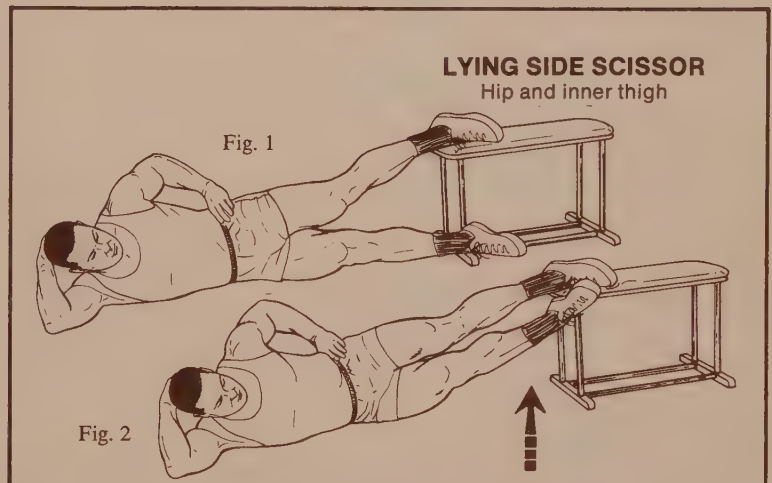
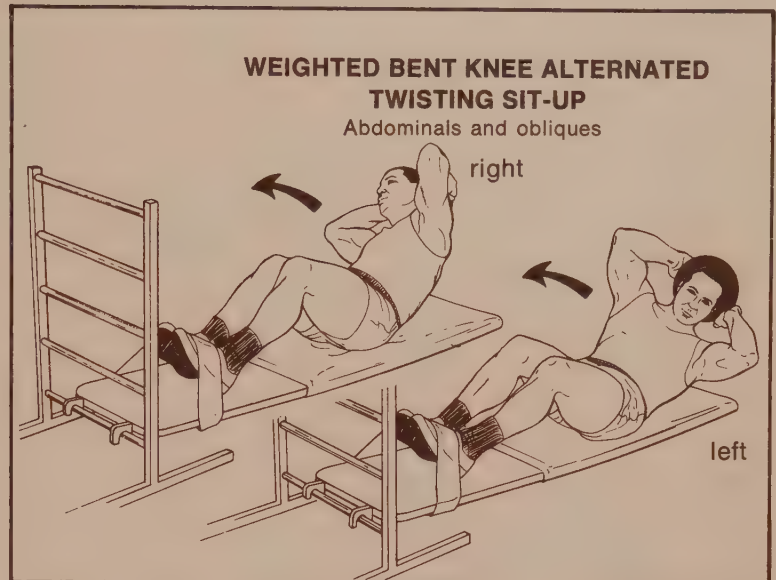
Abdominals and obliques

▲ **Lying Side Scissor**

Lie on your left side with your body straight and your right foot resting on a bench that is about twenty-four inches high. Inhale and raise your left foot up to meet your right foot keeping both legs locked out. Do the repetitions fairly fast and do not let your left foot touch the floor once you begin the exercise. Do the prescribed number of repetitions on the left side and then change to the right side and repeat the exercise.

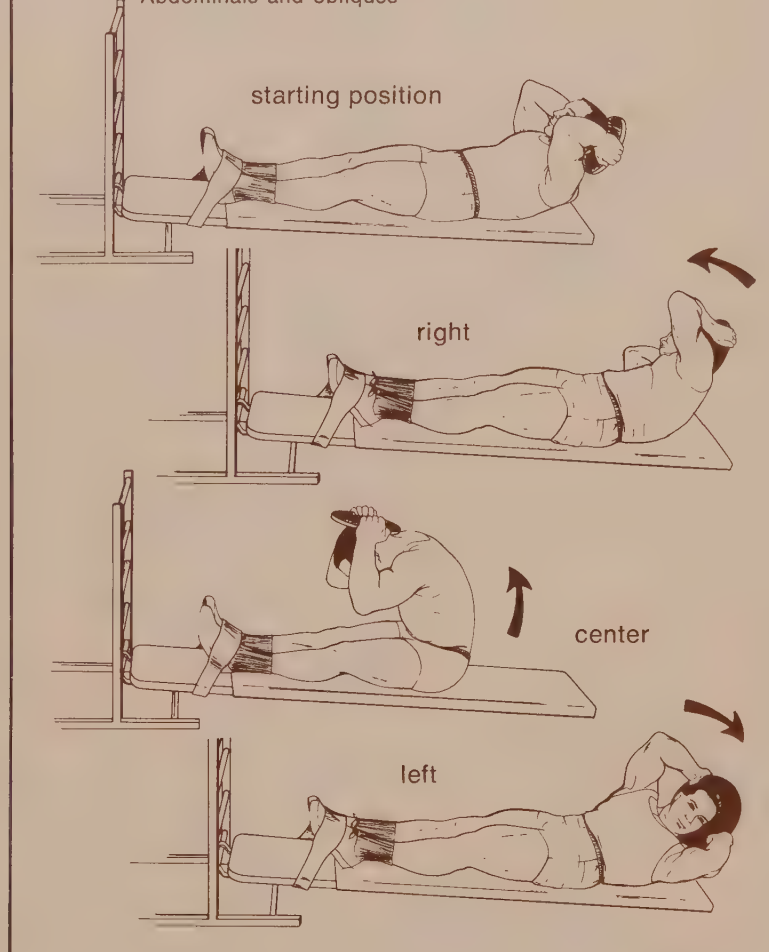
▲ **Lying Bench Side Scissor**

Lie on your left side on a bench so your hips are close to the end. Place your right leg on the top of an incline bench. Inhale and raise your left foot up to meet your right foot keeping both legs locked out. Your left leg should drop below parallel as you return to the starting position. Do the repetitions fairly fast. Do the prescribed number of repetitions on the left side and then change to the right side and repeat the exercise.



WEIGHTED COMPOUND SIT-UP

Abdominals and obliques



★ **Weighted Compound Sit-Up**

Sit down on a sit-up board and hook your feet under the strap with your knees slightly bent. Place a weight behind your head and put your chin on your chest. From this position, twist your torso to the right and inhale while lying back until your lower back touches the board. Return to the up position and exhale. Now, twist your torso back to a straight position and inhale as you do a regular sit-up. After returning to the top position, twist your torso to the left and repeat the movement. You then again twist your torso to a straight position and do a regular sit-up; then back to the right side, etc. Right-center-left-center-right-center.

★ **WEIGHTED INCLINE COMPOUND SIT-UP**

Upper abdominals and obliques

★ **WEIGHTED NONSUPPORTED COMPOUND SIT-UP**

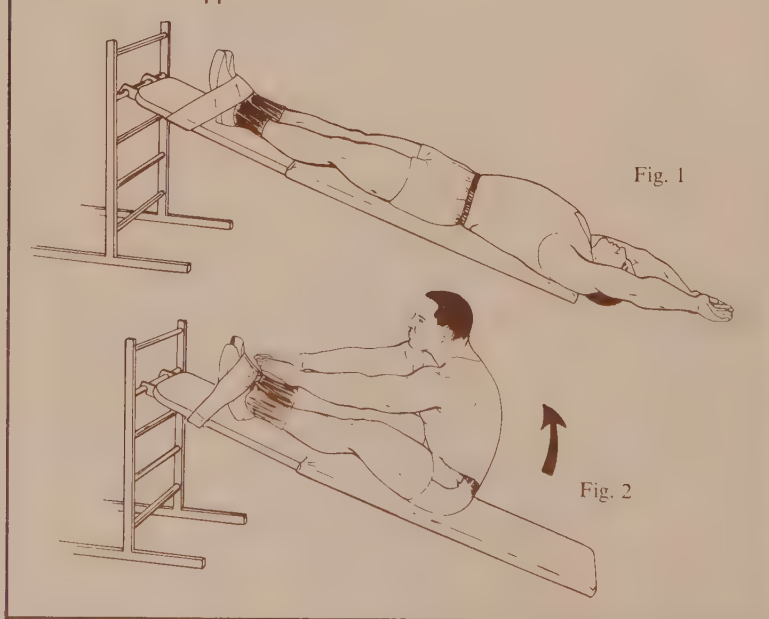
Abdominals and obliques

■ **Incline Arms Extended Sit-Up**

Position a sit-up board on a 25-30° angle. Sit down on the board with your feet at the high side and place them under the strap. With your knees slightly bent, place your arms above your head and lock your elbows out. Inhale and lower your torso down until your lower back touches the board. Now raise your torso straight up until your outstretched arms are nearly touching your feet and exhale.

INCLINE ARMS EXTENDED SIT-UP

Upper abdominals



■ **Nonsupported Arms Extended Sit-Up**

Abdominals

Lie on the floor without having your feet supported. Place your hands behind your head at arm's length. Inhale and pull your torso upward in a semicircular motion until your hands come as close to touching your feet as possible. You then return to starting position and exhale. Try to keep your feet from raising off the floor as you are pulling yourself up.

▲ **Decline Bench Arms Extended Sit-Up**

Abdominals

Sit on a decline bench with your knees bent and your feet held in place. Place your arms above your head and lock your elbows out. Inhale and lower your torso down until your lower back touches the board. Now raise your torso straight up and slightly past vertical with your outstretched arms in front of you and exhale.

● Kneeling Back Kick

Kneel on a flat bench with your left knee on the bench and your arms locked out holding on to the bench to support your upper body. Have your right leg hanging in a vertical position from the hip down. Inhale and raise your right leg straight back to the rear until it is nearly parallel or higher. Be sure not to bend the leg at the knee while you are performing the exercise. Exhale as you return your leg back to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

● STANDING BACK KICK

Lower back and hips

▲ Kneeling Low Pulley Back Kick

Kneel on a flat bench with your left knee on the bench and your arms locked out holding on to the bench to support your upper body. Place an ankle strap on your right ankle and have the bench far enough away from the pulley so that you are supporting the weight stack as you have your right leg hanging in a vertical position from the hip down. Inhale and raise your right leg straight back to the rear until it is nearly parallel or higher. Be sure not to bend the leg at the knee while you are performing the exercise. Exhale as you return your leg back to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

All exercises below are for lower back and hips.

■ INCLINE LOW PULLEY BACK KICK

▲ STANDING LOW PULLEY BACK KICK

▲ Lying Low Pulley Back Kick

Lower back and hips

Lie face down on the floor with your feet facing a wall pulley. Place an ankle strap on your right ankle and lay far enough away from the pulley so that you are supporting the weight stack with your right leg when you have the cable hooked to the ankle strap. Inhale and raise your right leg straight back to the rear as far as you comfortably can. Return the leg to starting position and exhale. Be sure to keep the leg as straight as possible while performing the exercise. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

KNEELING BACK KICK

Lower back and hips

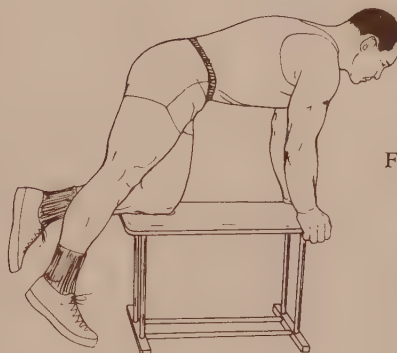


Fig. 1



Fig. 2

KNEELING LOW PULLEY BACK KICK

Lower back and hips

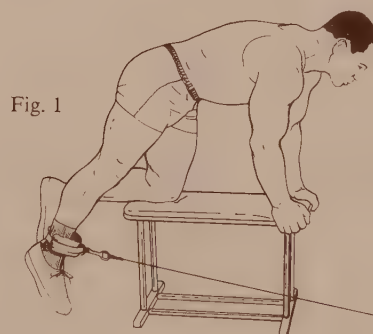


Fig. 1

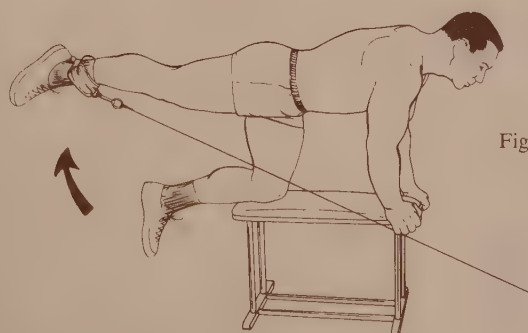


Fig. 2

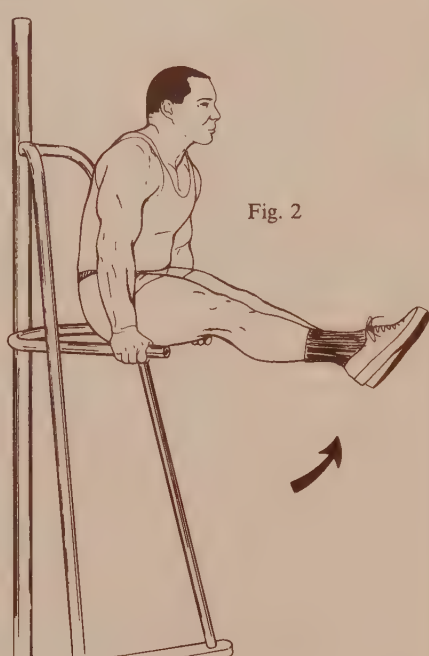
DIP STAND LEG RAISE

Lower abdominals

Fig. 1



Fig. 2



DIP STAND ALTERNATED LEG RAISE

Lower abdominals

Fig. 1

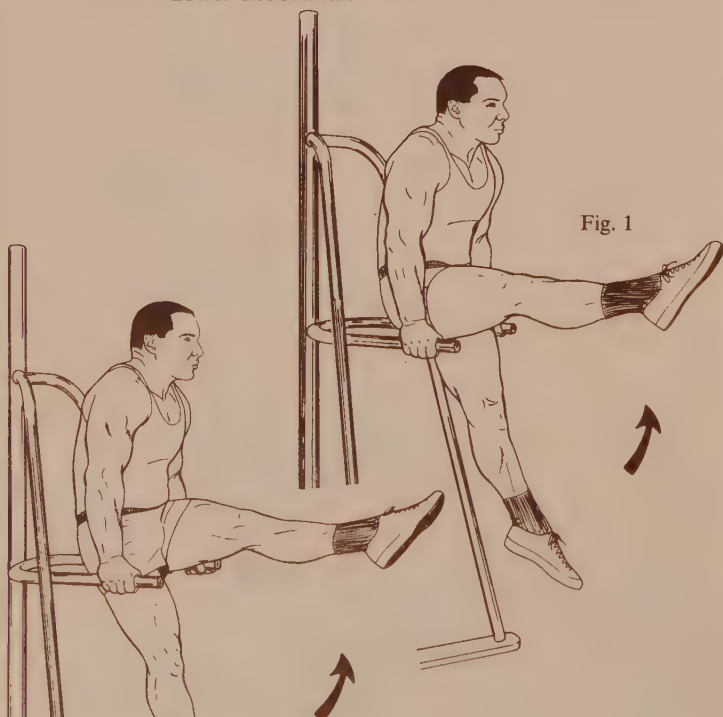
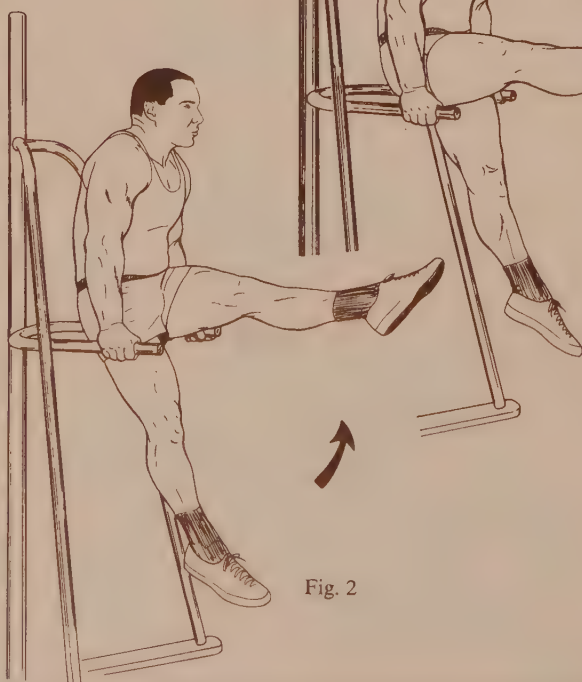


Fig. 2



■ Dip Stand Leg Raise

Position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position, inhale and bend at the waist, raising your legs up until they are parallel to the floor. Do not bend the knees if possible. Return to starting position and exhale.

■ INCLINE LEG RAISE

Lower abdominals

● STANDING FRONT LEG RAISE

Lower abdominals and hips

■ Seated Incline Leg Raise

Lower abdominals

Position a sit-up board on a 25-30° angle. Sit on the board so your feet are on the down side. Grasp the sides of the incline board just behind your buttocks. Sit back slightly and raise your feet about three inches off the board. Keep your legs as straight as possible. Inhale and raise both feet up until they are as high as possible while you come forward slightly with your torso. Return to starting position and exhale.

All exercises below are for lower abdominals.

▲ FLAT BENCH LEG RAISE

■ SEATED FLAT BENCH LEG RAISE

■ CHINNING BAR LEG RAISE

▲ VERTICAL BENCH LEG RAISE

▲ LEG RAISE

■ Dip Stand Alternated Leg Raise

Position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position, inhale and raise your right leg up until it is parallel to the floor. As you commence to lower your right leg, start raising your left leg to give you the same motion your legs move while swimming. Inhale as you raise your right leg and exhale as you raise your left leg.

All exercises below are for lower abdominals.

■ INCLINE ALTERNATED LEG RAISE

■ SEATED INCLINE ALTERNATED LEG RAISE

▲ FLAT BENCH ALTERNATED LEG RAISE

■ SEATED FLAT BENCH ALTERNATED LEG RAISE

■ CHINNING BAR ALTERNATED LEG RAISE

■ VERTICAL BENCH ALTERNATED LEG RAISE

▲ ALTERNATED LEG RAISE

★ Flat Bench Weighted Alternated Twisting Leg Raise

Place a light dumbbell between your feet and lie back on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with your palms facing down. Keep your legs straight and knees locked out. Twist your hips slightly to the right and raise your legs until they are vertical above your hips. Return to starting position and exhale. Now, twist your hips slightly to the left and raise your legs at a slight angle to the left until they are vertical above your hips. Return to starting position and exhale. Two movements constitute one repetition. Do not let your feet touch the floor once you have started the exercise.

★ SEATED FLAT BENCH WEIGHTED TWISTING LEG RAISE

Lower abdominals and obliques

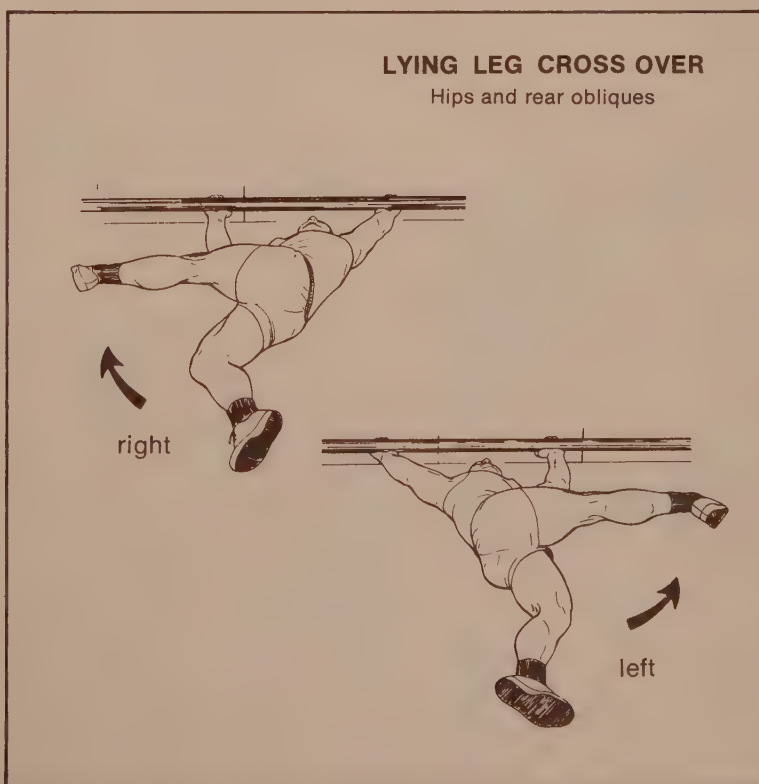
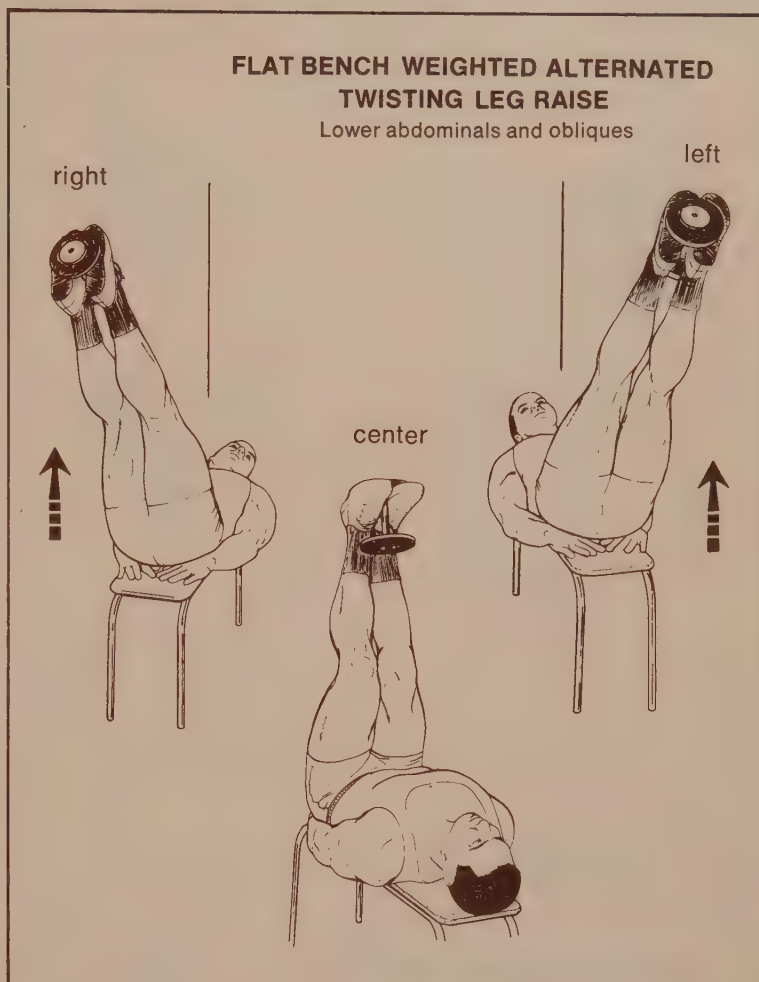
▲ Lying Leg Cross Over

Lie on your back with your hands behind your head holding onto some object with a wider than shoulder grip. (This is to keep both shoulders on the floor while performing the exercise.) With both legs straight out in front of you, swing the right leg over the left leg and as far to the side as you can until it is nearly as high as your head keeping it close to the floor. Return to starting position and then do the same movement with your left leg. Be sure to keep the knees locked out and the legs as straight as possible. Inhale as you swing the leg and exhale as you lower it.

● Double Leg Cross Over

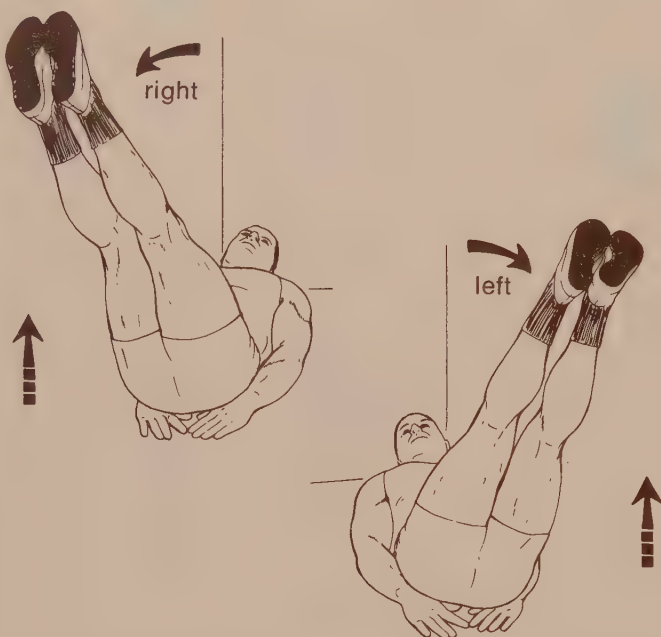
Hips and rear obliques

Lie on your back with your hands behind your head holding onto some object with a wider than shoulder grip. (This is to keep both shoulders on the floor while performing the exercise.) With both legs straight out in front of you, swing both legs as far to the right side as you can until they are nearly as high as your head keeping them close to the floor. Return to starting position and then do the same movement to the left side. Be sure to keep the knees locked out and the legs as straight as possible. Inhale as you swing the legs and exhale as you lower them.



TWISTING LEG RAISE

Lower abdominals and obliques



▲ Twisting Leg Raise

Lie on the floor and place your hands under your buttocks with your palms facing down. Keep your legs straight and your knees locked while you twist your hips slightly to the right and then raise your legs at a slight angle to the right until they are vertical above your hips. Return to starting position and exhale. Do the prescribed number of repetitions on the right angle and then change the angle of your hips to the left side and repeat the same number of repetitions.

■ Incline Twisting Leg Raise

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold yourself in a stationary position. With your legs locked out, twist your hips slightly to the right and raise your legs at a slight angle to the right until they are vertical above your hips. Lower your legs until they are about three inches off the board and exhale. Do the prescribed number of repetitions on the right angle and then change the angle of your hips to the left side and repeat the same number of repetitions.

INCLINE TWISTING LEG RAISE

Lower abdominals and obliques



■ Seated Incline Twisting Leg Raise

Lower abdominals and obliques

Position a sit-up board on a 25-30° angle. Sit down on the board with your back to the high side with your legs straight out in front of you resting on the board. Place your hands behind your buttocks and grasp the outer sides of the board for support. Twist your hips slightly to the right and raise your legs at a slight angle to the right until your body is at about a 45° angle. Lower your legs until they are about three inches off the board and exhale. Do the prescribed number of repetitions on the right side and then change the angle of your hips to the left side and repeat the same number of repetitions.

▲ Flat Bench Twisting Leg Raise

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with your palms facing down. With your legs locked out, twist your hips slightly to the right. Inhale and raise your legs until they are vertical above your hips. Lower your legs until they are about three inches off the floor and exhale. Do the prescribed number of repetitions on the right side and then change the angle of your hips to the left side and repeat the same number of repetitions.

■ Seated Flat Bench Twisting Leg Raise

Lower abdominals and obliques

Sit down on the end of a flat bench with your legs straight out in front of you. Place your hands behind your buttocks and grasp the outer sides of the bench for support. With your legs locked out, twist your hips slightly to the right and raise your legs at a slight angle to the right until they are at about a 45° angle with your upper body. Lower your legs until they are about three inches off the floor and exhale. Do the prescribed number of repetitions on the right angle and then change the angle of your hips to the left side and repeat the same number of repetitions.

■ Chinning Bar Twisting Leg Raise

Stand on a bench and grasp a chinning bar with your palms facing down. Use about a twenty-four inch grip. Step off of the bench and support your weight with your arms which are held straight. With your legs locked out, twist your hips slightly to the right and raise your legs at a slight angle to the right until they are slightly above parallel with the floor. Lower your legs until your body is again in a vertical position and exhale. Do the prescribed number of repetitions on the right angle and then change the angle of your hips to the left side and repeat the same number of repetitions.

▲ Vertical Bench Twisting Leg Raise

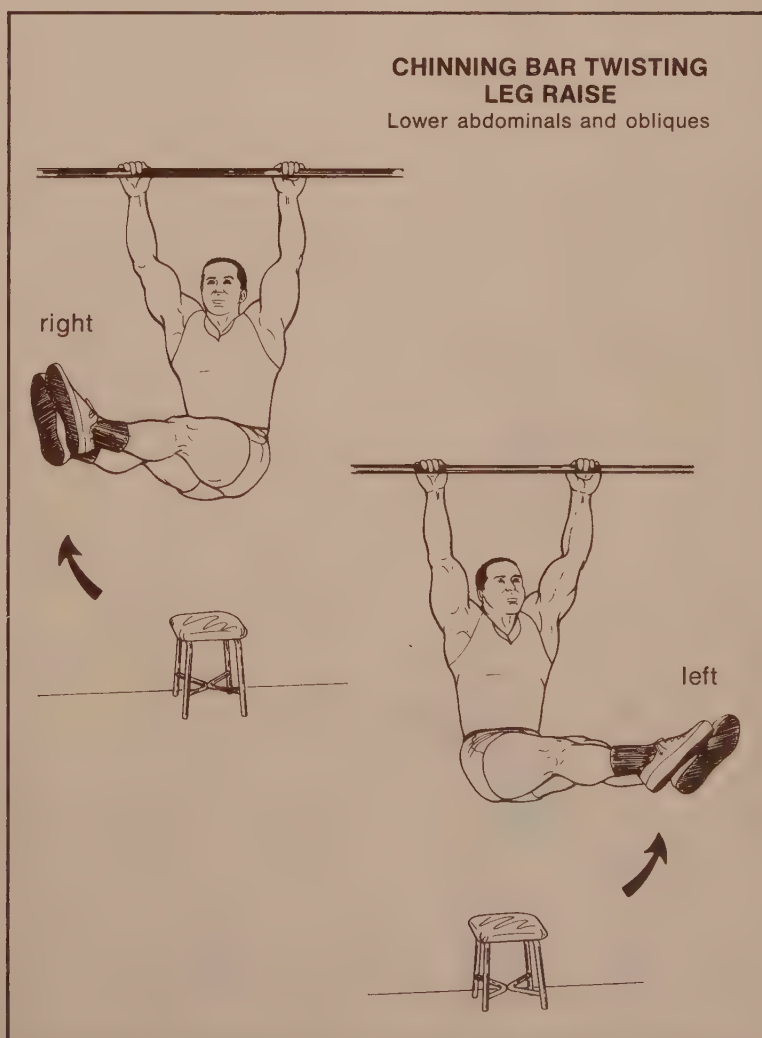
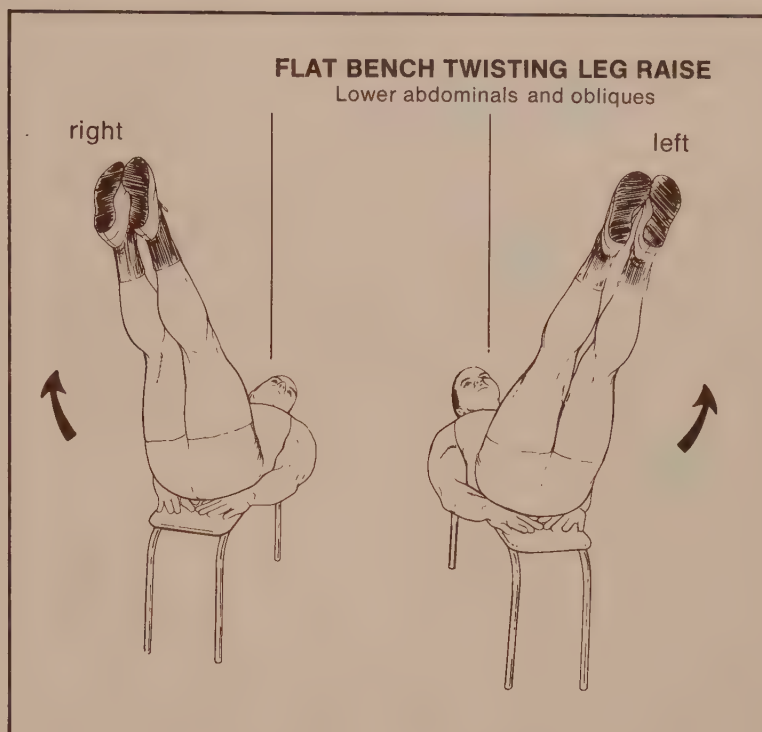
Lower abdominals and obliques

Position yourself on a vertical abdominal bench with your body being supported by your arms having your shoulders locked out. Hanging in a vertical position, with your legs locked out, twist your hips slightly to the right and raise your legs at a slight angle to the right until they are slightly above parallel with the floor. Lower your legs until your body is again in a vertical position and exhale. Do the prescribed number of repetitions on the right angle and then change the angle of your hips to the left side and repeat the same number of repetitions.

▲ Dip Stand Twisting Leg Raise

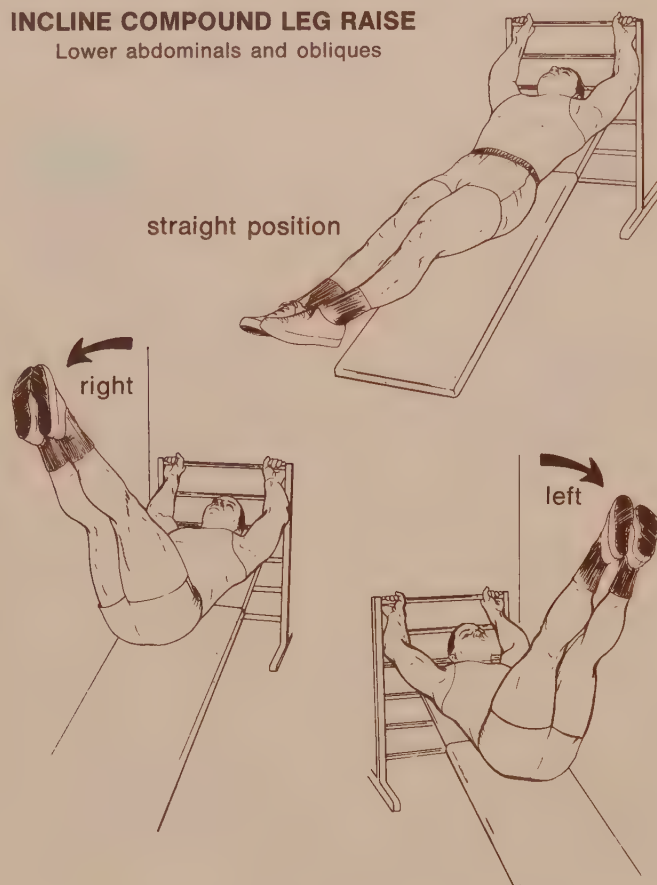
Lower abdominals and obliques

Position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position with your legs locked out, twist your hips slightly to the right and raise your legs to a slight angle to the right until they are slightly above parallel with the floor.



INCLINE COMPOUND LEG RAISE

Lower abdominals and obliques



Lower your legs until your body is again in a vertical position and exhale. Do the prescribed number of repetitions on the right angle and then change the angle of your hips to the left side and repeat the same number of repetitions.

■ Incline Compound Leg Raise

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold yourself in a stationary position. Keep your legs straight and knees locked out. Twist your hips to the right and inhale while raising your legs to a vertical position above your hips. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular incline leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular leg raise again and then back to the right, etc. Let your legs down until they are about three inches off the board and keep tension on your lower abdominals.

All exercises below are for lower abdominals and obliques.

■ SEATED INCLINE COMPOUND LEG RAISE

■ FLAT BENCH COMPOUND LEG RAISE

■ SEATED FLAT BENCH COMPOUND LEG RAISE

■ CHINNING BAR COMPOUND LEG RAISE

■ VERTICAL BENCH COMPOUND LEG RAISE

■ DIP STAND COMPOUND LEG RAISE

■ COMPOUND LEG RAISE

■ Weighted Leg Raise

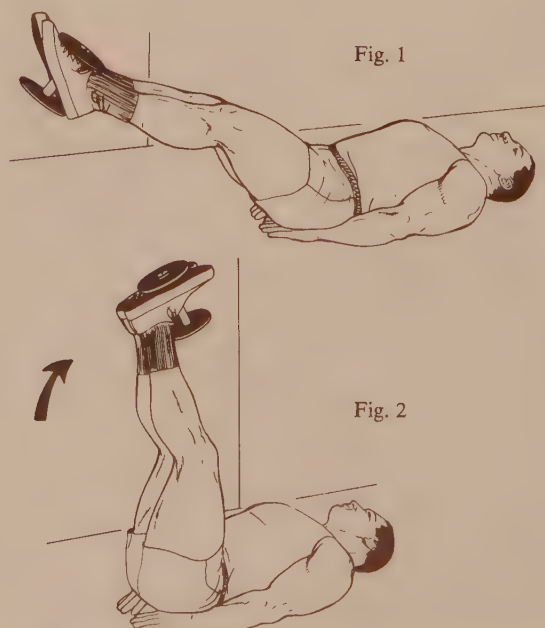
Place a light dumbbell between your feet and lie supine on the floor with your hands under your buttocks, palms facing down. Keep your legs straight and your knees locked out. Inhale and raise your legs to a vertical position over your hips. Let your legs back to the floor and exhale.

★ Incline Weighted Leg Raise

Position a sit-up board on a 25-30° angle. Place a light dumbbell between your feet and lie back on the board with your head at the top. Keep your legs straight and your knees locked out. Inhale and raise your legs as near to vertical as you can and then lower your legs and exhale. Do not let your feet touch the board once you have started the exercise.

WEIGHTED LEG RAISE

Lower abdominals



★ Seated Incline Weighted Leg Raise

Lower abdominals

Position a sit-up board on a 25-30° angle. Sit down on the board with your back to the high side with your legs straight out in front of you resting on the board with a light dumbbell held between your feet. Place your hands behind your buttocks and grasp the outer sides of the board for support. Inhale and raise your legs until your body is at about a 45° angle. Let your legs down until they are about three inches off the board and exhale.

■ Flat Bench Weighted Leg Raise

Place a light dumbbell between your feet and lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with your palms facing down. Keep your legs straight and your knees locked out. Inhale and raise your legs to a vertical position over your hips. Let your legs down until they are about three inches off the floor and exhale.

★ Seated Flat Bench Weighted Leg Raise

Lower abdominals

Sit down on the end of a flat bench with your legs straight out in front of you holding a light dumbbell between your feet. Place your hands behind your buttocks and grasp the outer sides of the bench for support. Inhale and raise your legs as high as is comfortably possible. Let your legs down until they are about three inches off the floor and exhale.

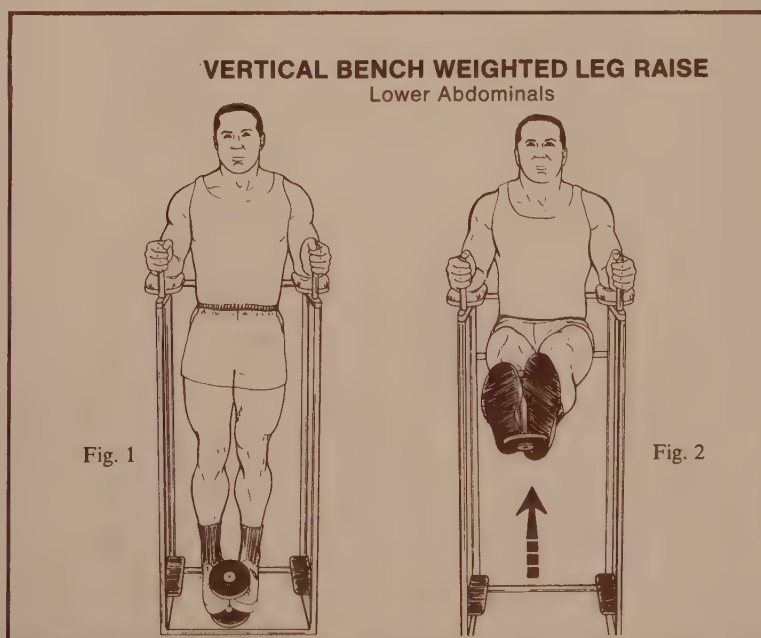
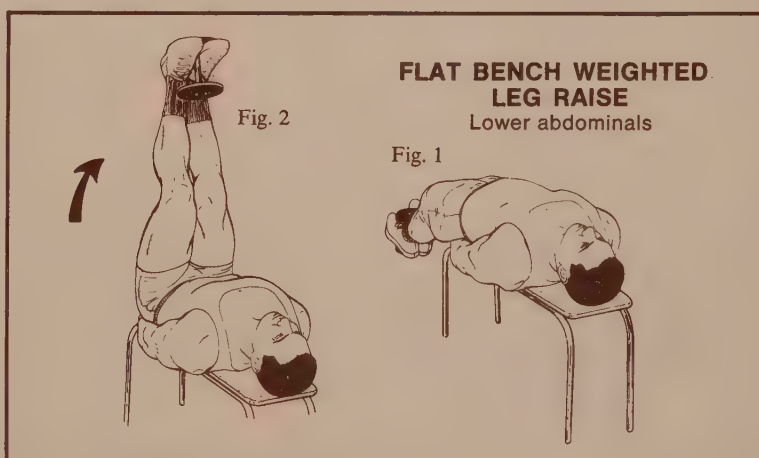
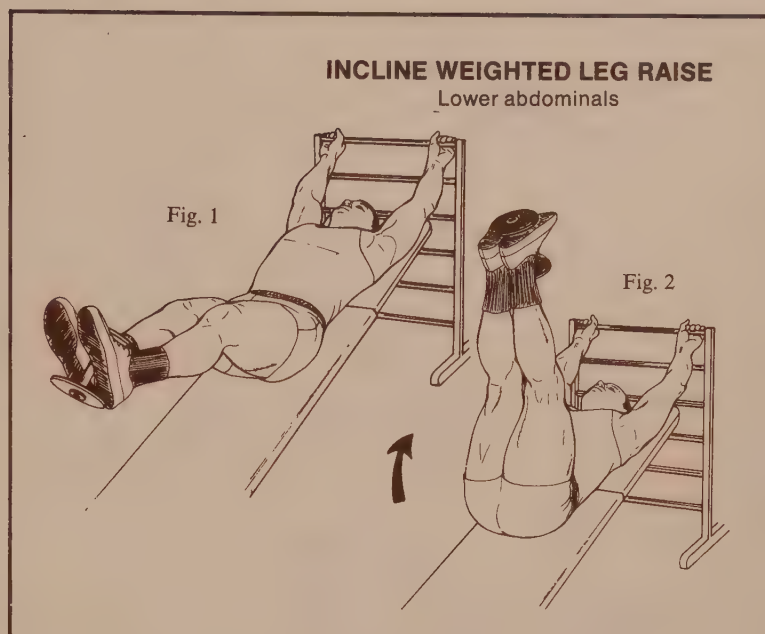
★ Chinning Bar Weighted Leg Raise

Lower abdominals

With a dumbbell placed between your feet to hold it stationary, stand on a bench and grasp a chinning bar with your palms facing down. Use about a twenty-four inch grip. Step off the bench and support your weight with your arms which are held straight. Inhale and raise your legs until they are slightly above parallel with the floor. Let your legs down until your body is in a vertical position and exhale.

★ Vertical Bench Weighted Leg Raise

With a dumbbell placed between your feet to hold it stationary, position yourself on a vertical abdominal bench with your body being supported by your arms having your shoulders locked out. Hanging in a vertical



INCLINE LOW PULLEY SIDE LEG RAISE

Hips and obliques

Fig. 1

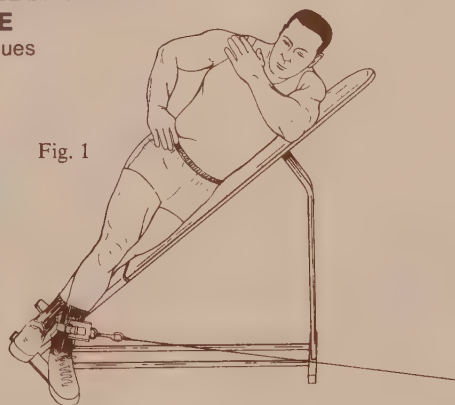
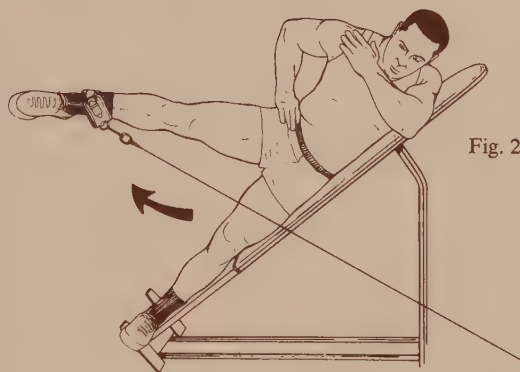


Fig. 2



LYING LOW PULLEY SIDE LEG RAISE

Hips and obliques

Fig. 1

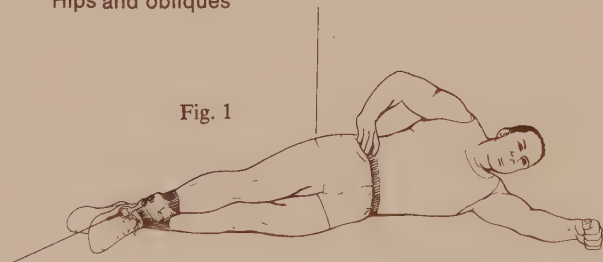
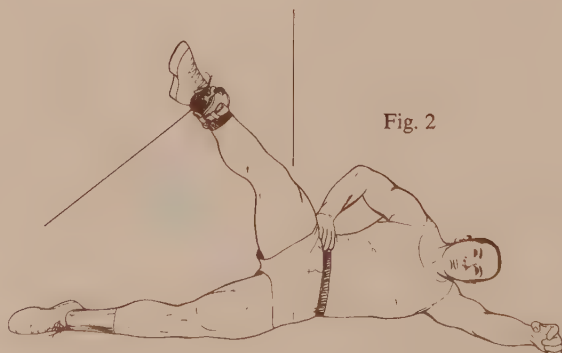


Fig. 2



position, inhale and raise your legs until they are slightly above parallel with the floor. Let your legs down until your body is again in a vertical position and exhale.

■ Incline Low Pulley Side Leg Raise

Lie on your left side on an incline bench with your body tilted slightly to the front. Place an ankle strap on your right ankle and have the bench far enough away from the pulley so that you are supporting the weight stack as you have your right leg hanging to the side of the bench. Inhale and raise your right leg up until it is nearly parallel with your body. Keep the leg straight and do not bend forward at the waist. Exhale as you return the leg to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

▲ Kneeling Low Pulley Side Leg Raise

Hips and obliques

Kneel on a flat bench with your left knee on the bench and your arms locked out holding on the bench to support your upper body. Place an ankle strap on your right ankle and have the bench far enough away from the pulley so that you are supporting the weight stack as you have your right leg hanging in a vertical position from the hip down when you have the cable hooked to the ankle strap. Inhale and raise the right leg out to the side until it is nearly parallel. Be sure not to bend the leg at the knee while you are performing the exercise. Exhale as you return your leg to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

▲ Lying Low Pulley Side Leg Raise

Lie on the floor on your left side with your body tilted slightly to the front and your feet facing a wall pulley. Place an ankle strap on your right ankle and lay far enough way from the pulley so that you are supporting the weight stack with your right leg. Inhale and raise your right leg up until it is nearly vertical with the floor. Keep the leg straight and do not bend forward at the waist. Exhale as you return the leg to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

■ Low Pulley Alternated Twisting Leg Pull-In

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both

ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your legs straight. Place your hands under your buttocks with your palms facing down. Twist your hips to a slight right angle and hold the twist as you pull your leg up, bending your knees, until your upper thighs are vertical and your lower legs are parallel to the floor. Now, twist the position of your hips to the left and extend your legs out and down until they nearly touch floor on the left side. Keeping the twist to the left, raise your legs to vertical and then over to the right and down. The movement goes: right, left, right, left, right, left.

▲ Flat Bench Alternated Twisting Leg Raise

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with your palms facing down. With your legs held straight in front of you, twist your hips slightly to the right and then raise your legs at a slight angle to the right until they are vertical above your hips. Return to starting position and exhale. Now, twist your hips slightly to the left and raise your legs at a slight angle to the left until they are vertical above your hips. Return to starting position and exhale. Your legs should be lowered to just below parallel to the floor.

All exercises below are for lower abdominals and obliques.

- SEATED FLAT BENCH ALTERNATED TWISTING LEG RAISE
- INCLINE ALTERNATED TWISTING LEG RAISE
- SEATED INCLINE ALTERNATED TWISTING LEG RAISE
- CHINNING BAR ALTERNATED TWISTING LEG RAISE
- VERTICAL BENCH ALTERNATED TWISTING LEG RAISE
- DIP STAND ALTERNATED TWISTING LEG RAISE
- ▲ ALTERNATED TWISTING LEG RAISE

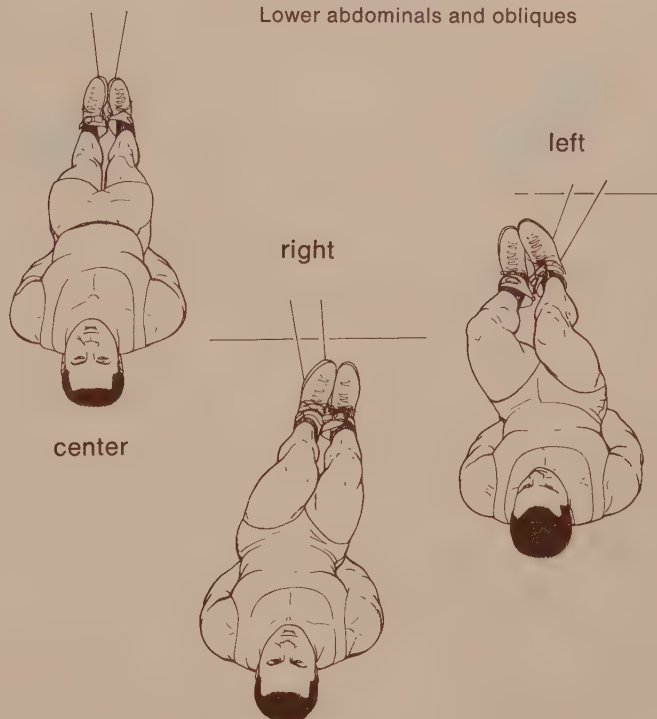
● Flat Bench Bent Knee Leg Raise

Lower abdominals

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with palms facing down. Have your toes touch the floor while keeping your knees in a bent position. Pull your knees up to a vertical position above your

LOW PULLEY ALTERNATED TWISTING LEG PULL-IN

Lower abdominals and obliques



FLAT BENCH ALTERNATED TWISTING LEG RAISE

Lower abdominals and obliques

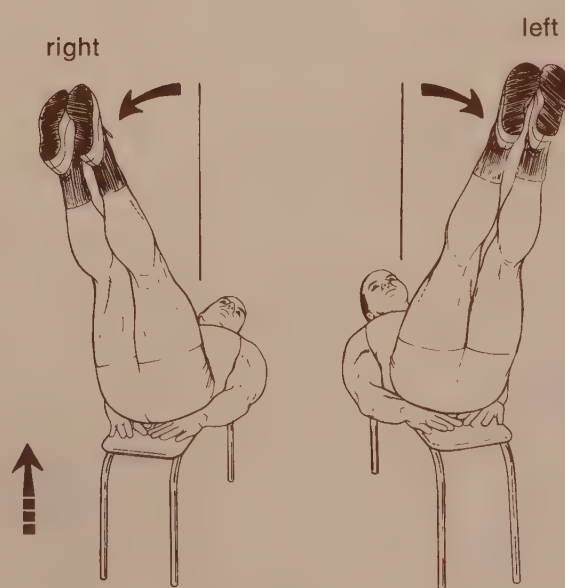
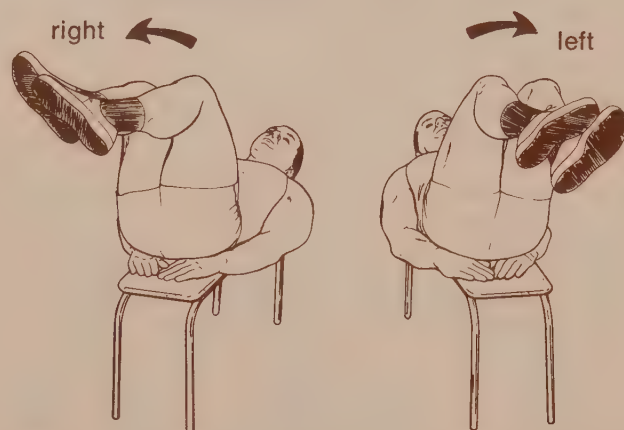


Fig. 1

Fig. 2

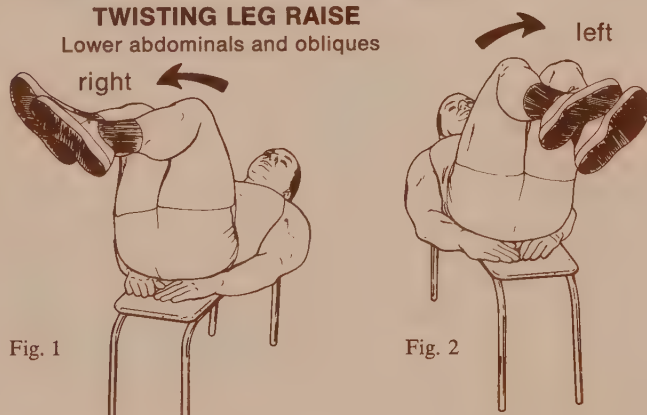
FLAT BENCH BENT KNEE TWISTING LEG RAISE

Lower abdominals and obliques



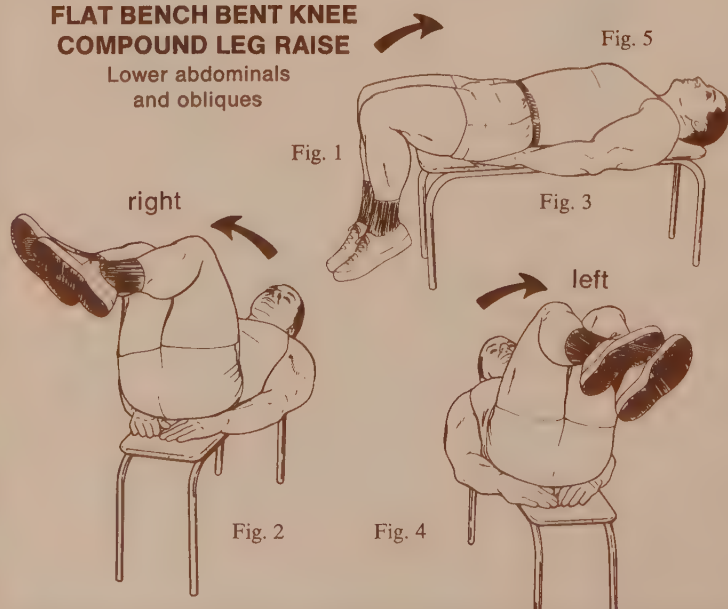
FLAT BENCH BENT KNEE ALTERNATED TWISTING LEG RAISE

Lower abdominals and obliques



FLAT BENCH BENT KNEE COMPOUND LEG RAISE

Lower abdominals and obliques



hips. Return to starting position and exhale. You keep your knees in the bent position throughout the entire exercise.

● Flat Bench Bent Knee Twisting Leg Raise

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with palms facing down. Twist your hips to the right while having your toes touch the floor keeping your knees in a bent position. Retaining this twist, pull your knees up to a vertical position above your waist. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of your hips to the left and perform the same number of repetitions.

● Flat Bench Bent Knee Alternated Twisting Leg Raise

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with palms facing down. Twist your hips to the right while having your toes touch the floor keeping your knees in a bent position. Retaining this twist, pull your knees up to a vertical position above your waist. Now, twist the position of your hips to the left and lower your feet back to the floor to your left, keeping your knees bent. Raise your legs back to vertical and over to the right and down. The movement goes: right, left, right, left, right, left.

▲ Flat Bench Bent Knee Compound Leg Raise

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with palms facing down. Twist your hips to the right while having your toes touch the floor keeping your knees in a bent position. Retaining this twist, pull your knees up to a vertical position above your waist. Now, twist the position of your hips straight ahead and lower your legs to the floor in front of you, keeping your knees bent. Raise your legs back to vertical and shift the position of your hips to the left and lower your feet back to the floor to the left of you, keeping your knees bent. Raise your legs back to vertical and down in front. Raise the legs again and over to the right and down. Back up and down to the front. Back up and down to the left. The movement goes: right, center, left, center, right, center, left, center.

★ Weighted Alternated Twisting Leg Raise

Place a light dumbbell between your feet

and lie supine on the floor with your hands under your buttocks. Keep your legs straight and your knees locked out. Twist your hips slightly to the right and raise your legs at a slight angle to the right until they are vertical above your hips. Return to starting position and exhale. Now, twist your hips slightly to the left and raise your legs at a slight angle to the left until they are vertical above your hips. Return to starting position and exhale. Two movements constitute one repetition. Do not let your feet touch the floor once you have started the exercise.

▲ Incline Weighted Alternated Twisting Leg Raise

Lower abdominals and obliques

Position a sit-up board on a 25-30° angle. Place a light dumbbell between your feet and lie back on the board with your head at the top. Keep your legs straight and your knees locked out. Twist your hips slightly to the right and raise your legs at a slight angle to the right until they are nearly vertical. Return to starting position and exhale. Now, twist your hips slightly to the left and raise your legs at a slight angle to the left until they are nearly vertical. Return to starting position and exhale. Two movements constitute one repetition. Do not let your feet touch the bench once you have started the exercise.

★ Weighted Compound Leg Raise

With a dumbbell placed between your feet to hold it stationary, lie supine on the floor and place your hands under your buttocks with the palms facing down. From this position, twist your hips to the right and inhale while raising your legs until they are vertical above your waist. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular leg raise again and then back to the right, etc.

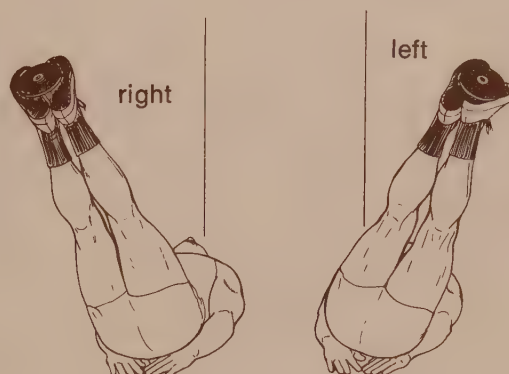
★ Weighted Incline Compound Leg Raise

Lower abdominals and obliques

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Place a light dumbbell between your feet to hold it stationary. Use your hands to hold your body in a stationary position. Twist your hips to the right and inhale while raising your legs until they are at a 45° angle with the board. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular leg raise. After returning to the down position, twist

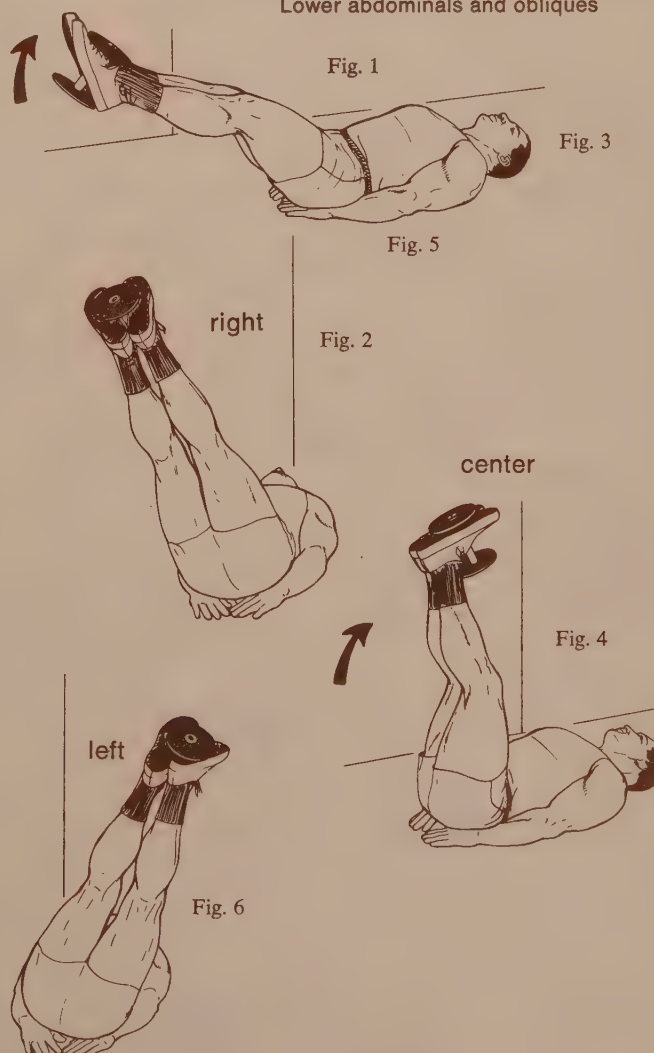
WEIGHTED ALTERNATING TWISTING LEG RAISE

Lower abdominals and obliques



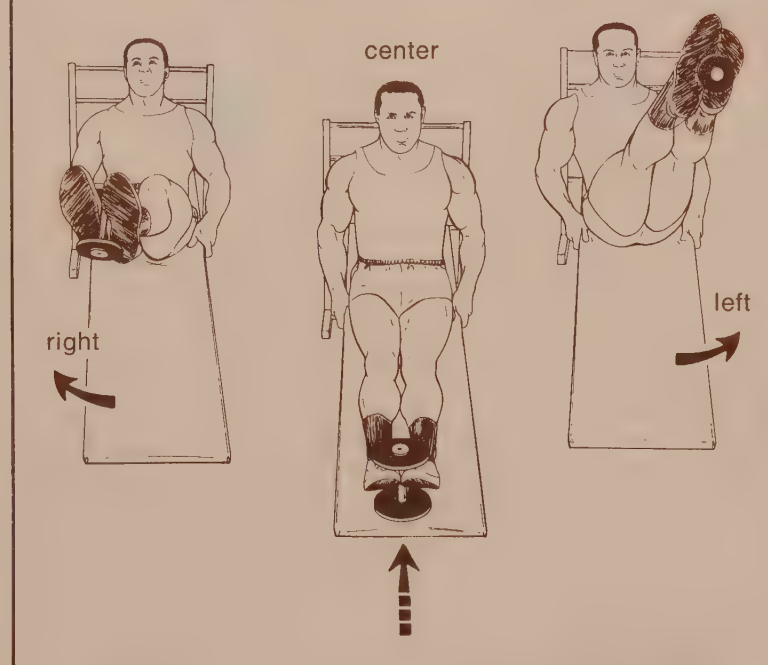
WEIGHTED COMPOUND LEG RAISE

Lower abdominals and obliques



WEIGHTED SEATED INCLINE COMPOUND LEG RAISE

Lower abdominals and obliques



your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular leg raise again and then back to the right, etc.

★ Weighted Seated Incline Compound Leg Raise

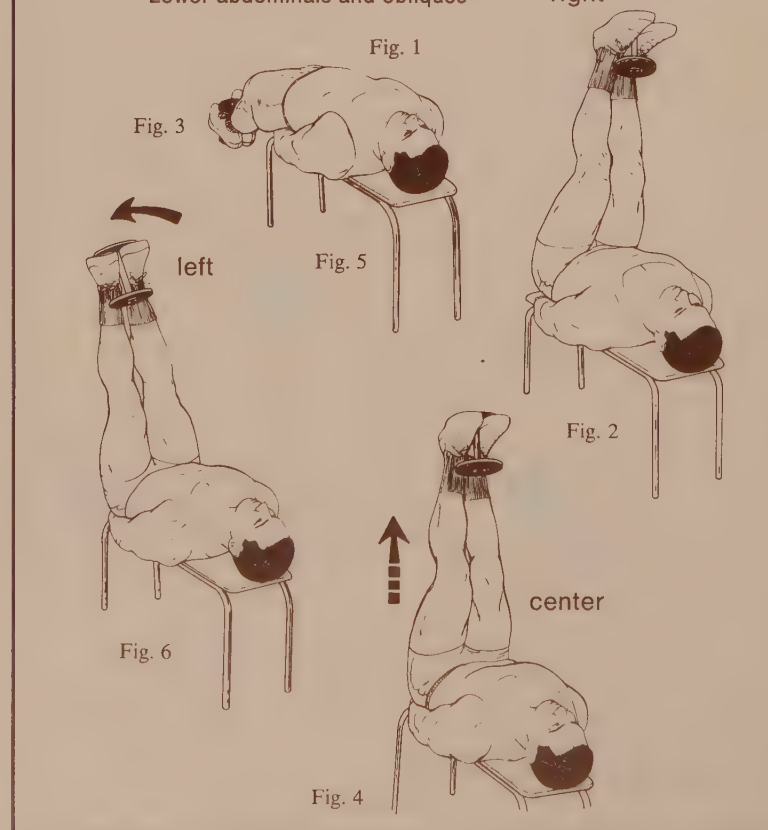
Position a sit-up board on a 25-30° angle. Sit down on the board with your back to the high side with your legs straight out in front of you resting on the board with a light dumbbell held between your feet. Place your hands behind your buttocks and grasp the outer sides of the board for support. Raise your legs about six inches in the air. Twist your hips to the right and inhale while raising your legs until they are at a 45° angle with the board. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular seated incline leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular leg raise again and then back to the right, etc.

★ Weighted Flat Bench Compound Leg Raise

With a dumbbell placed between your feet to hold it stationary, lie supine on a flat bench and place your hands under your buttocks with the palms facing down. From this position, twist your hips to the right and inhale while raising your legs until they are vertical above your waist. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular flat bench leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular flat bench leg raise again and then back to the right, etc.

WEIGHTED FLAT BENCH COMPOUND LEG RAISE

Lower abdominals and obliques



★ Weighted Seated Flat Bench Compound Leg Raise

Lower abdominals and obliques

Sit down on the end of a flat bench with your legs straight out in front of you holding a light dumbbell between your feet. Place your hands behind your buttocks and grasp the outer sides of the bench for support. From this position, twist your hips to the right and inhale while raising your legs until they are at a 45° angle with your upper body. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular seated flat bench leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular seated

flat bench leg raise again and then back to the right, etc.

★ Weighted Vertical Bench Compound Leg Raise

With a dumbbell placed between your feet to hold it stationary, position yourself on a vertical abdominal bench with your body being supported by your arms having your shoulders locked out. Hanging in a vertical position, inhale and twist your hips to the right while raising your legs until they are parallel with the floor. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular vertical bench leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips back to a straight position and do a regular vertical bench leg raise again and then back to the right, etc.

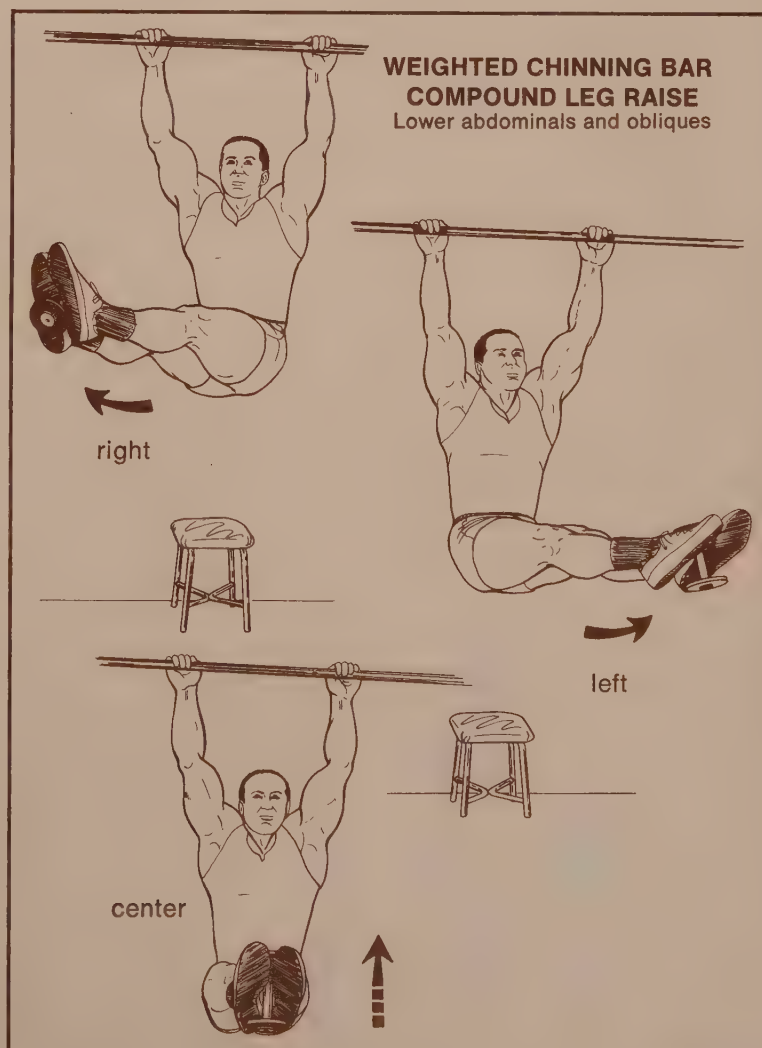
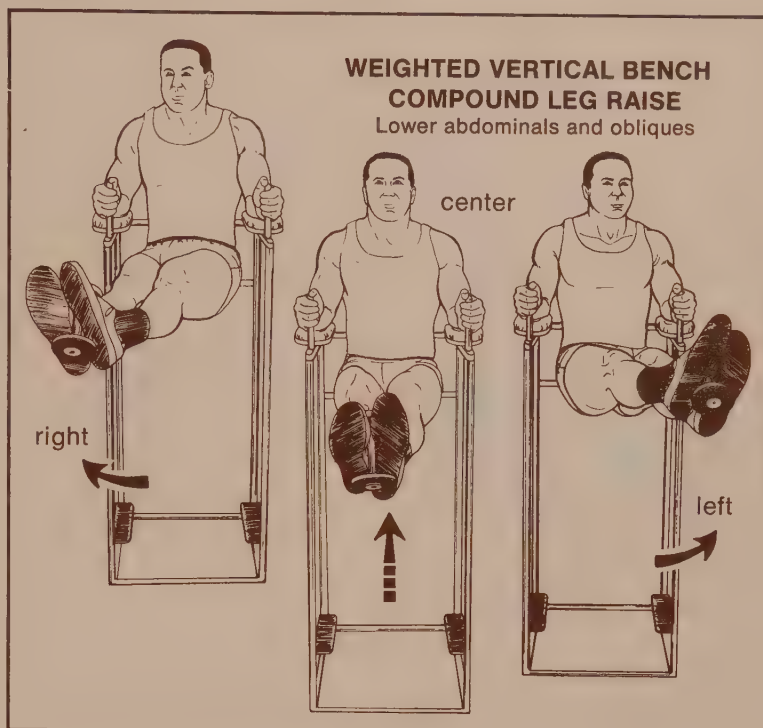
★ Weighted Dip Stand Compound Leg Raise

Lower abdominals and obliques

With a dumbbell placed between your feet to hold it stationary, position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position, inhale and twist your hips to the right while raising your legs until they are parallel with the floor. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular dip stand leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips back to a straight position and do a regular dip stand leg raise again and then back to the right, etc.

★ Weighted Chinning Bar Compound Leg Raise

With a dumbbell placed between your feet to hold it stationary, stand on a bench and grasp a chinning bar with your palms facing down. Use about a twenty-four inch grip. Step off the bench and support your weight with your arms which are held straight. From this position, twist your hips to the right and inhale while raising your legs until they are parallel with the floor. Return to the down position and exhale. Now, twist your hips back to normal and perform a regular chinning bar leg raise. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular chinning bar leg raise again and then back to the right, etc.



INCLINE LEG PULL-IN

Lower abdominals

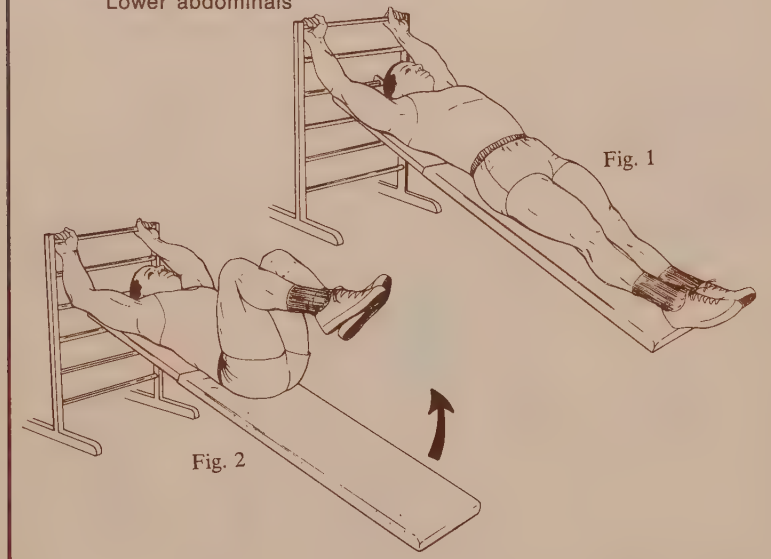


Fig. 1

Fig. 2

FLAT BENCH LEG PULL-IN

Lower Abdominals

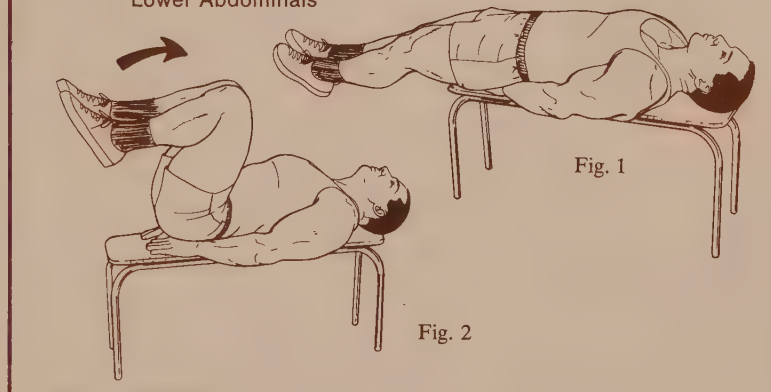


Fig. 1

Fig. 2

SEATED FLAT BENCH LEG PULL-IN

Lower abdominals

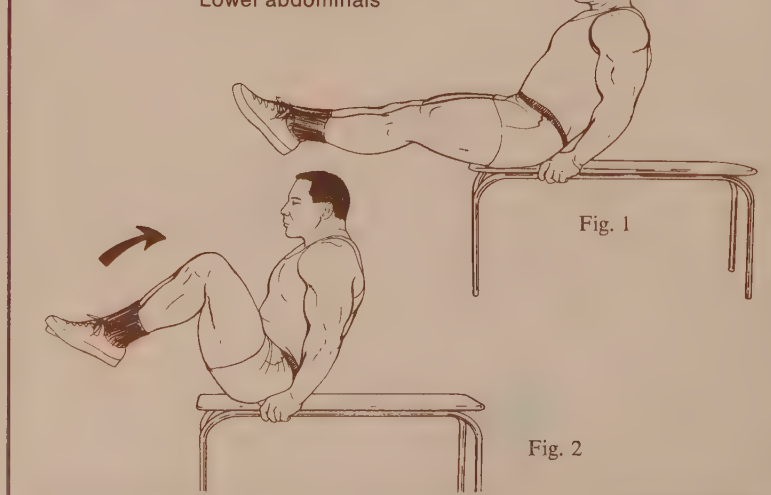


Fig. 1

Fig. 2

▲ Incline Leg Pull-In

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold yourself in a stationary position. Inhale and bend your knees while pulling your upper thighs into your midsection. Return to starting position and exhale. Concentrate on your lower abdominals during the exercise. Do not let your feet touch the board once you have started the exercise.

■ Seated Incline Leg Pull-In

Lower abdominals

Position a sit-up board on a 25-30° angle. Sit down on the board with your back to the high side with your legs straight out in front of you resting on the board. Place your hands behind your buttocks and grasp the outer sides of the board for support. Raise your legs about six inches in the air and inhale as you bend your knees while pulling your upper thighs into your midsection. Return to starting position keeping your legs off the bench in the low position and exhale. Concentrate on your lower abdominals during the exercise.

▲ Flat Bench Leg Pull-In

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with your palms facing down. With your legs held straight in front of you, inhale and bend your knees while pulling your upper thighs into your midsection. Return to starting position and exhale. Concentrate on your lower abdominals during the exercise. Note that your lower legs are parallel to the floor at the halfway point of the exercise.

▲ Seated Flat Bench Leg Pull-In

Sit down on the end of a flat bench with your legs straight out in front of you. Place your hands behind your buttocks and grasp the outer sides of the bench for support. Inhale and bend your knees while pulling your upper thighs into your midsection. Return to starting position and exhale. Concentrate on your abdominals during the exercise. Note that your lower legs are parallel to the floor at the halfway point of the exercise.

■ Chinning Bar Leg Pull-In

Lower abdominals

Stand on a bench and grasp a chinning bar with your palms facing down. Use about a

twenty-four inch grip. Step off the bench and support your weight with your arms which are held straight. Inhale and bend your knees while pulling your upper thighs into your midsection. Return to starting position and exhale. Concentrate on your lower abdominals during the exercise. Note that your lower legs are vertical to the floor at the halfway point of the exercise.

▲ Vertical Bench Leg Pull-In

Lower abdominals

Position yourself on a vertical abdominal bench with your body being supported by your arms having your shoulders locked out. Hanging in a vertical position, inhale and bend your knees while pulling your upper thighs into your midsection. Return to starting position and exhale. Concentrate on your lower abdominals during the exercise. Note that your lower legs are vertical to the floor at the halfway point of the exercise.

■ Dip Stand Leg Pull-In

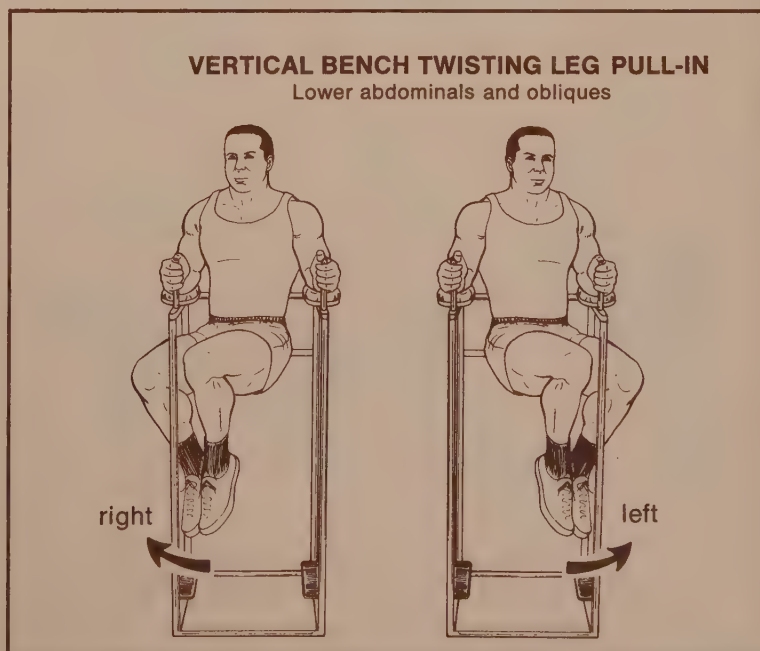
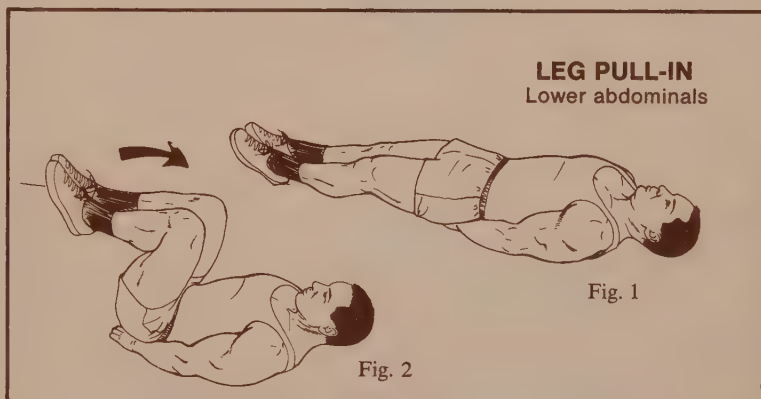
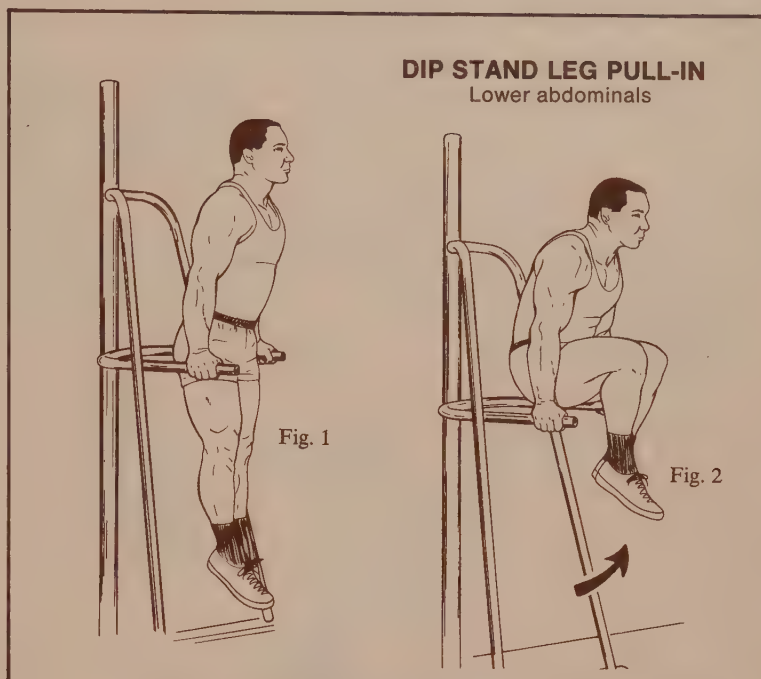
Position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position, inhale and bend your knees while pulling your upper thighs into your midsection. Return to starting position and exhale. Concentrate on your lower abdominals during the exercise. Note that your lower legs are vertical to the floor at the halfway point of the exercise.

▲ Leg Pull-In

Lie on the floor and place your hands under your buttocks with your palms facing down. Inhale and bend your knees while pulling your upper thighs into your midsection. Return to starting position and exhale. Concentrate on your lower abdominals during the exercise. Note that your lower legs are parallel to the floor at the half way point of the exercise.

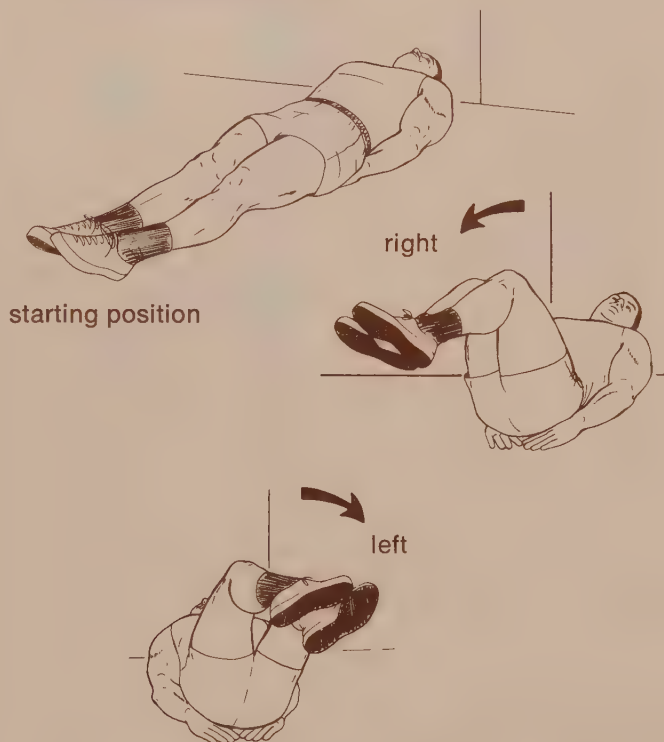
▲ Vertical Bench Twisting Leg Pull-In

Position yourself on a vertical abdominal bench with your body being supported by your arms, having your shoulders locked out. Hanging in a vertical position, inhale and twist your lower body to a slight angle to the right from the waist down. Raise your legs up as you bend at the knees so at the top position your upper thighs are parallel



TWISTING LEG PULL-IN

Lower abdominals and obliques



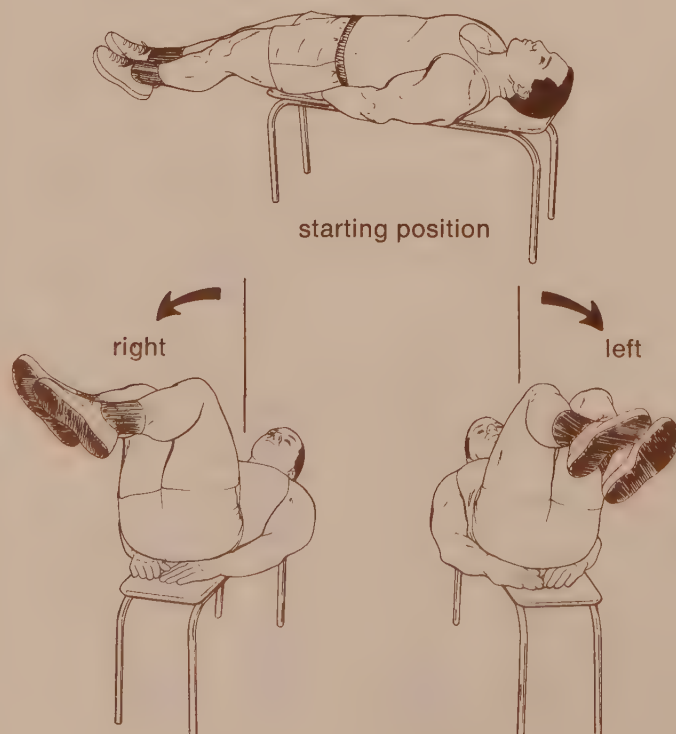
to the floor and your lower legs are vertical to the floor. You must keep the twist to your body. Lower your legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.

▲ Twisting Leg Pull-In

Lie on the floor and place your hands under your buttocks with your palms facing down. With your legs straight out in front of you and your knees locked, raise them about three inches off the floor and twist your hips to a slight angle to the right from the waist down. By doing this, it will cause your feet to shift slightly to the right. Inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are vertical to the floor and your lower legs are parallel to the floor. You must keep the twist to your body. Lower your legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.

FLAT BENCH TWISTING LEG PULL-IN

Lower abdominals and obliques



▲ Flat Bench Twisting Leg Pull-In

Lie on a flat bench with your hands under your buttocks with your palms facing down. With your legs straight out in front of you and your knees locked, twist your hips to a slight angle to the right from the waist down. By doing this it will cause your feet to shift slightly to the right. Inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are vertical to the floor and your lower legs are parallel to the floor. You must keep the twist to your body. Lower your legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.

■ Seated Flat Bench Twisting Leg Pull-In

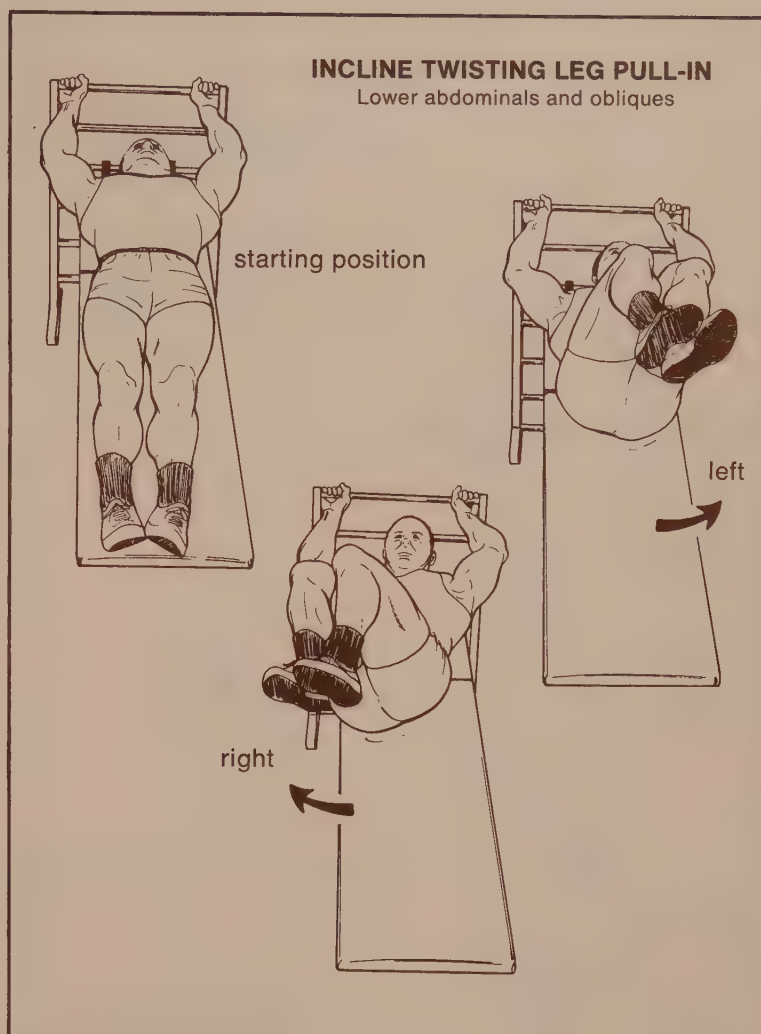
Lower abdominals and obliques

Sit on the end of a flat bench with your legs straight out in front of you on the floor. Place your hands behind your buttocks and grasp the outer sides of the bench for support. With your legs locked out, raise them off the floor until they are parallel with the

floor. Twist your hips to a slight angle to the right from the waist down. By doing this it will cause your feet to shift slightly to the right. Inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are vertical with the floor and your lower legs are parallel with the floor. You must keep the twist to your body. Lower your legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.

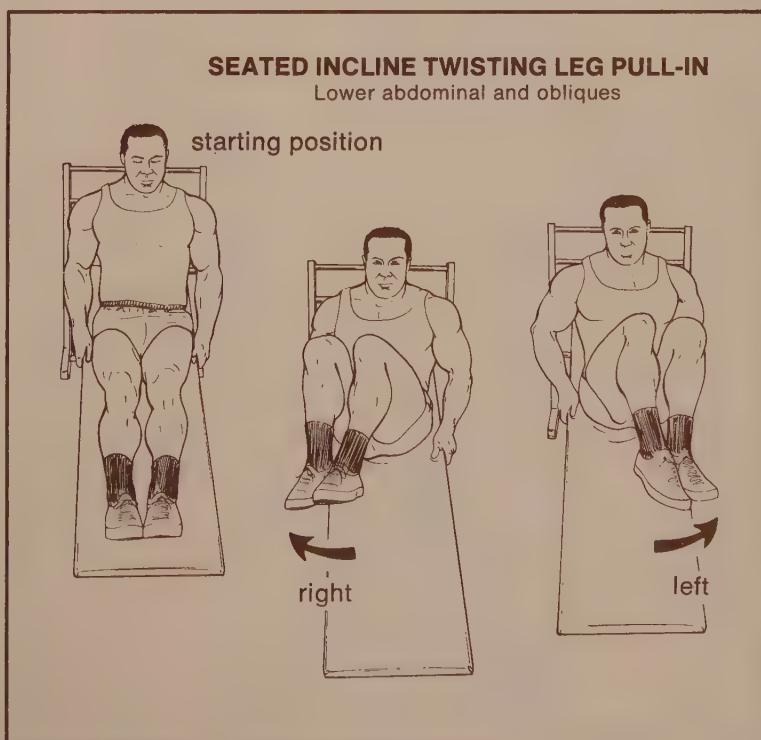
▲ Incline Twisting Leg Pull-In

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the high side and your legs straight out in front of you resting on the board. Use the ladder behind your head to raise the sit-up board to support your weight while doing the exercise. Raise your feet off the board about three inches and twist your hips to a slight angle to the right from the waist down. By doing this, it will cause your feet to shift slightly to the right. Inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are vertical with the board and your lower legs are parallel with the board. You must keep the twist to your body. Lower your legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.



■ Seated Incline Twisting Leg Pull-In

Position a sit-up board on a 25-30° angle. Sit down on the board with your back to the high side with your legs straight out in front of you resting on the board. Place your hands behind your buttocks and grasp the outer sides of the board for support. Raise your feet off the board about three inches and twist your hips to a slight angle to the right from the waist down. By doing this, it will cause your feet to shift slightly to the right. Inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are vertical with the board and your lower legs are parallel with the board. You must keep the twist to your body. Lower the legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.



CHINNING BAR COMPOUND LEG PULL-IN

Lower abdominals and obliques

Fig. 1
starting position

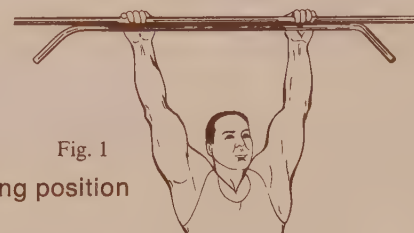


Fig. 2

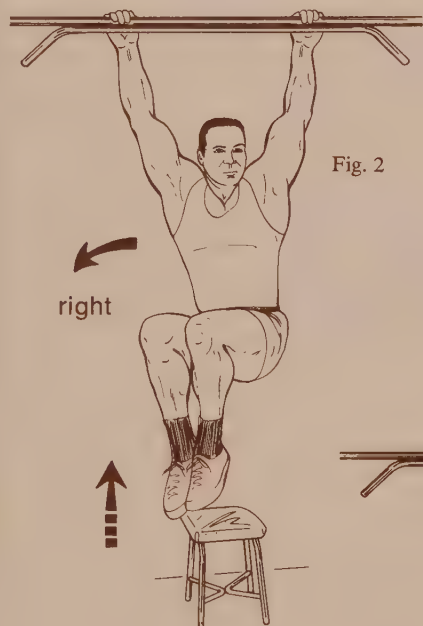


Fig. 3



Fig. 5

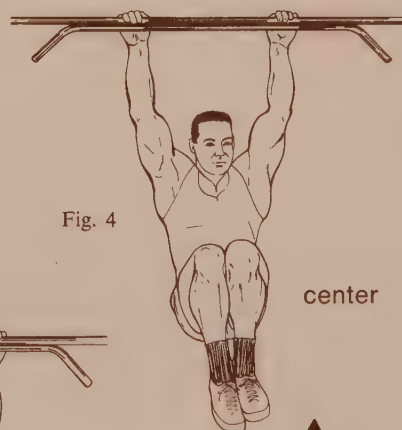


Fig. 4

center

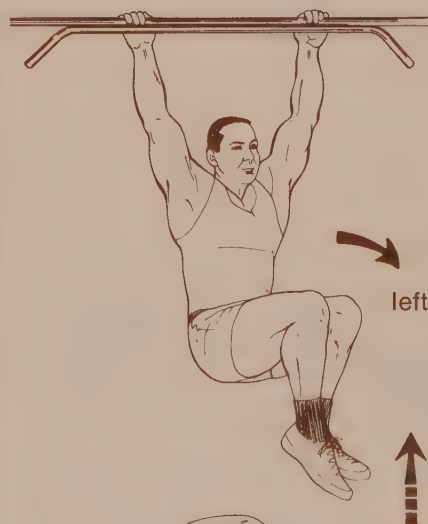


Fig. 6



Chinning Bar Compound Leg Pull-In

Stand on a bench and grasp a chinning bar with your palms facing down. Use about a twenty-four inch grip. Step off of the bench and support your body with your arms which are held straight. Twist your lower body to a slight angle to the right from the waist down. Keeping this twist, inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are parallel to the floor and your lower legs are vertical to the floor. Change the position of your hips to straight ahead and lower your legs down in front of you. Now raise your legs up again and change the position of your hips to a slight angle to the left and lower your legs down with a slight angle to the left. Pull them up again and repeat the movement to the middle. Up again and to the right. The movement goes: right, center, left, center, right, center, left, center.

Flat Bench Compound Leg Pull-In

Lower abdominals and obliques

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with your palms facing down. With your legs held straight in front of you, twist your hips to the right and inhale while bending your knees and pulling your upper thighs into your midsection. Return to starting position and exhale. Now, twist your hips back to normal and perform a regular flat bench leg pull-in. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular flat bench leg pull-in again and then back to the right, etc.

Seated Flat Bench Compound Leg Pull-In

Lower abdominals and obliques

Sit down on the end of a flat bench with your legs straight out in front of you. Place your hands behind your buttocks and grasp the outer sides of the bench for support. Twist your hips to the right and inhale while bending your knees and pulling your upper thighs into your midsection. Return to starting position and exhale. Now, twist your hips back to normal and perform a regular seated flat bench leg pull-in. After returning to the starting position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular seated flat bench leg pull-in again and then back to the right, etc.

■ Incline Compound Leg Pull-In

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold yourself in a stationary position. From this position, twist your hips to the right and inhale while bending your knees and pulling your upper thighs into your midsection. Return to starting position and exhale. Now, twist your hips back to normal and perform a regular incline leg pull-in. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular incline leg pull-in again and then back to the right, etc.

■ Vertical Bench Compound Leg Pull-In

Lower abdominals and obliques

Position yourself on a vertical abdominal bench with your body being supported by your arms having your shoulders locked out. Hanging in a vertical position, twist your hips to the right and inhale while bending your knees and pulling your upper thighs into your midsection. Return to starting position and exhale. Now, twist your hips back to normal and perform a regular vertical bench leg pull-in. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular vertical bench leg pull-in again and then back to the right, etc.

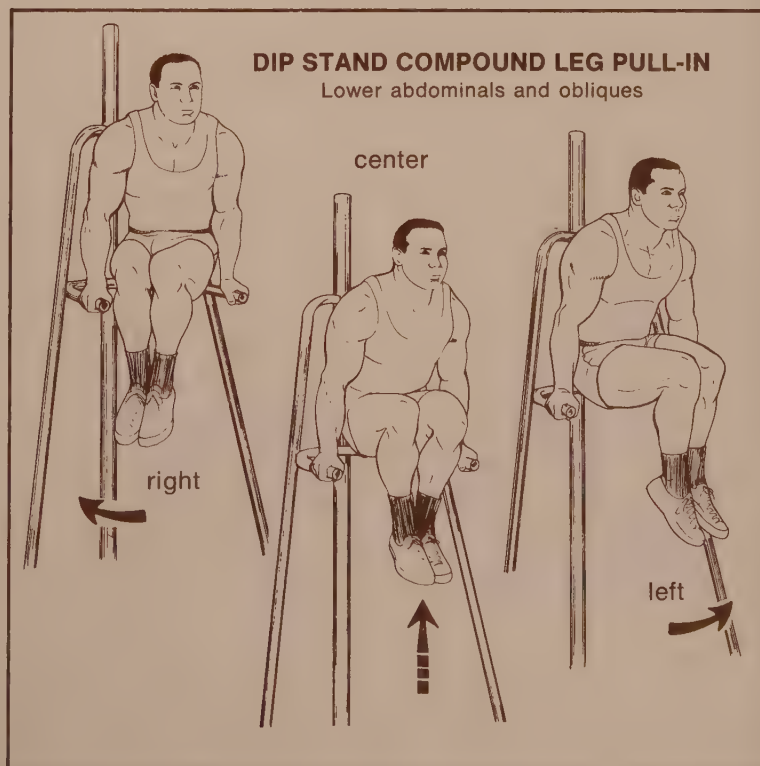
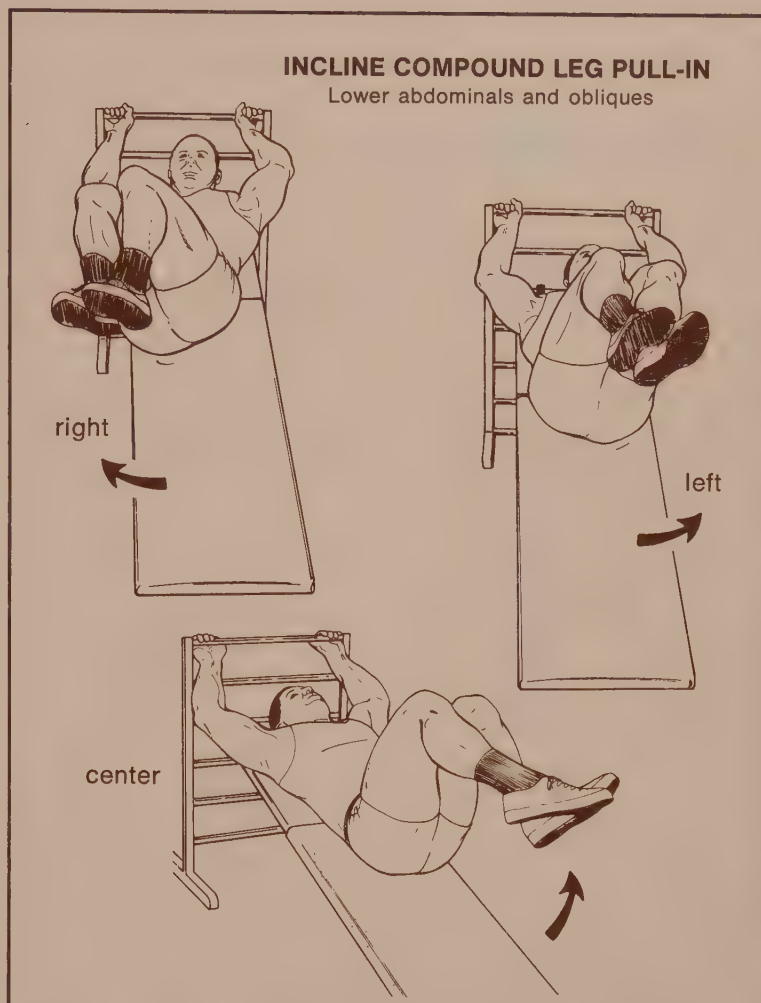
■ Dip Stand Compound Leg Pull-In

Position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position, twist your hips to the right and inhale while bending your knees and pulling your upper thighs into your midsection. Return to starting position and exhale. Now, twist your hips back to normal and perform a regular dip stand leg pull-in. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular dip stand leg pull-in again and then back to the right, etc.

■ Compound Leg Pull-In

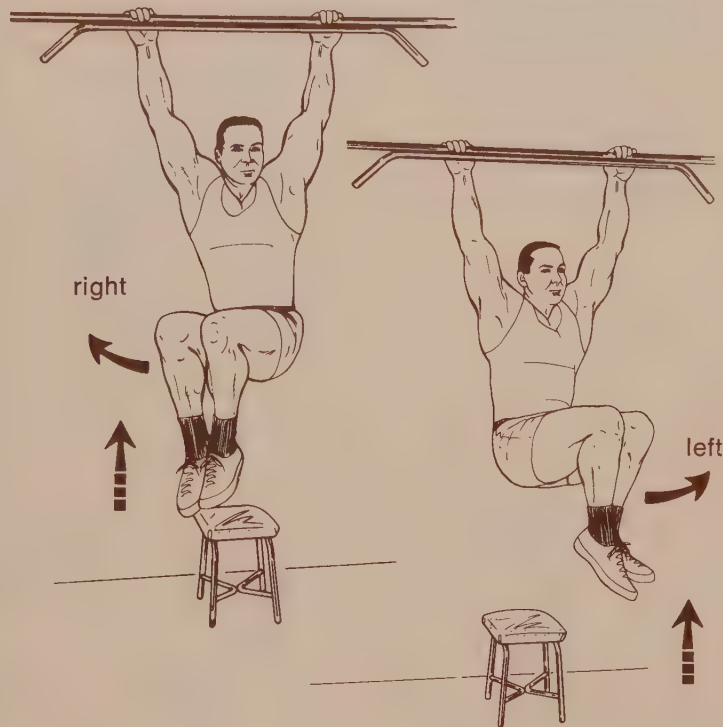
Lower abdominals and obliques

Lie supine on the floor and place your hands under your buttocks with the palms facing down. From this position, twist your hips to the right and inhale while bending your knees and pulling your upper thighs into your midsection. Return to starting



CHINNING BAR TWISTING LEG PULL-IN

Lower abdominals



position and exhale. Now, twist your hips back to normal and perform a regular leg pull-in. After returning to the down position, twist your hips to the left and repeat the movement. You then twist your hips to a straight position and do a regular pull-in again and then back to the right, etc.

SEATED INCLINE COMPOUND LEG PULL-IN

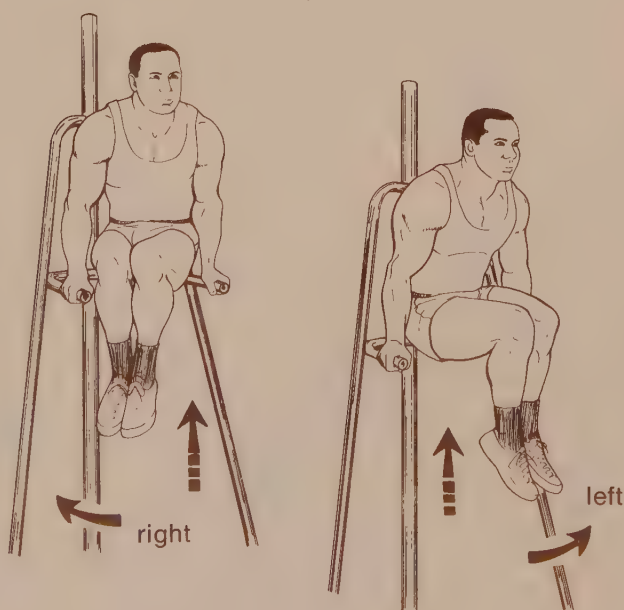
Lower abdominals and obliques

Chinning Bar Twisting Leg Pull-In

Stand on a bench and grasp a chinning bar with your palms facing down. Use about a twenty-four inch grip. Step off the bench and support your weight with your arms which are held straight. Hanging in a vertical position, twist your hips to a slight angle to the right from the waist down. By doing this it will cause your feet to shift slightly to the right. Inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are parallel with the floor and your lower legs are vertical with the floor. You must keep the twist to your body. Lower your legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.

DIP STAND TWISTING LEG PULL-IN

Lower abdominals and obliques



Dip Stand Twisting Leg Pull-In

Position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position, twist your hips to a slight angle to the right from the waist down. By doing this, it will cause your feet to shift slightly to the right. Inhale and raise your legs up as you bend at the knees so at the top position your upper thighs are parallel with the floor and your lower legs are vertical with the floor. You must keep the twist to your body. Lower your legs to starting position and exhale. Do the prescribed number of repetitions on the right side and then twist your lower body to a slight angle to the left and repeat the same number of repetitions.

Seated Incline Alternated Leg Pull-In

Position a sit-up board on a 25-30° angle. Sit on the board so your feet are on the down end. Grasp the sides of the board just behind your buttocks. Sit back slightly and raise your feet about three inches off the board. Inhale and raise your right leg up, bending it at the knee, until it is vertical with your body and your lower leg is parallel with the board. As you start to return

your right leg to starting position, commence to raise your left leg up, getting the same motion going with your thighs as if you were riding a bicycle. Inhale as you raise your right leg and exhale as you lower it. A movement with each leg is considered one repetition.

All exercises below are for lower abdominals and obliques.

▲ **ALTERNATED LEG PULL-IN**

▲ **FLAT BENCH ALTERNATED LEG PULL-IN**

▲ **INCLINE ALTERNATED LEG PULL-IN**

■ **SEATED FLAT BENCH ALTERNATED LEG PULL-IN**

▲ **VERTICAL BENCH ALTERNATED LEG PULL-IN**

■ **DIP STAND ALTERNATED LEG PULL-IN**

■ **CHINNING BAR ALTERNATED LEG PULL-IN**

▲ **Alternated Twisting Leg Pull-In**

Lie on the floor and place your hands under your buttocks with your palms facing down. With your legs out in front of you at a slight angle to the right, inhale and pull your knees up until the upper thighs are vertical while your lower legs stay parallel with the floor. You must keep the twist to your lower body. Change the position of your hips to a slight left angle and extend your legs straight out until they are parallel with the floor on your left as you exhale. Pull them back to vertical position and repeat the movement to the right. The movement will go: right, left, right, left.

All exercises below are for lower abdominals and obliques.

■ **INCLINE ALTERNATED TWISTING LEG PULL-IN**

■ **SEATED INCLINE ALTERNATED TWISTING LEG PULL-IN**

▲ **FLAT BENCH ALTERNATED TWISTING LEG PULL-IN**

▲ **SEATED FLAT BENCH ALTERNATED TWISTING LEG PULL-IN**

■ **CHINNING BAR ALTERNATED TWISTING LEG PULL-IN**

▲ **VERTICAL BENCH ALTERNATED TWISTING LEG PULL-IN**

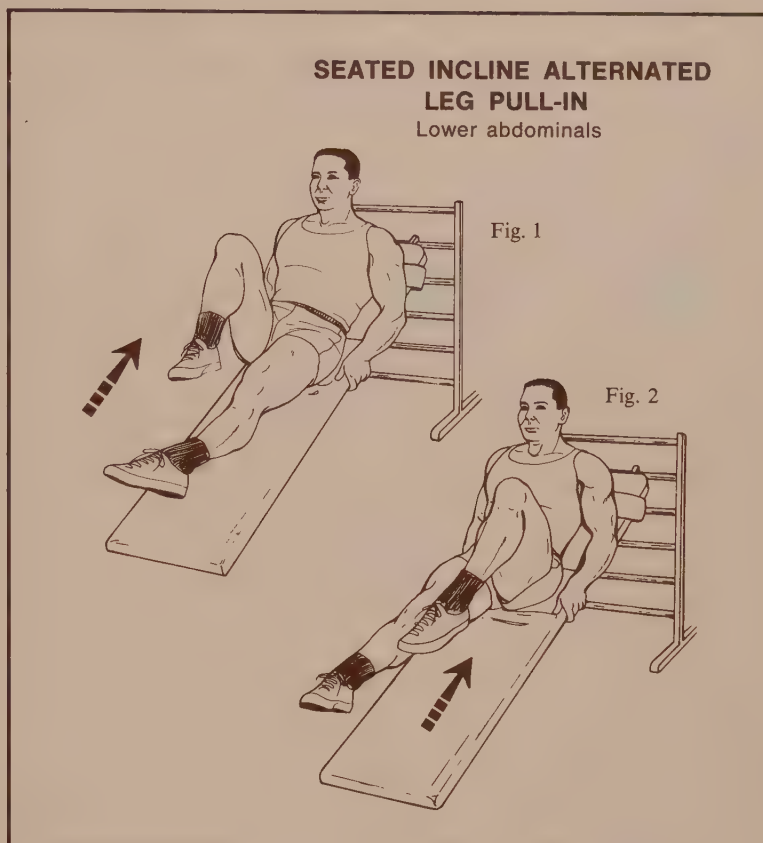
■ **DIP STAND ALTERNATED TWISTING LEG PULL-IN**

■ **Low Pulley Leg Pull-in**
Lower abdominals

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both

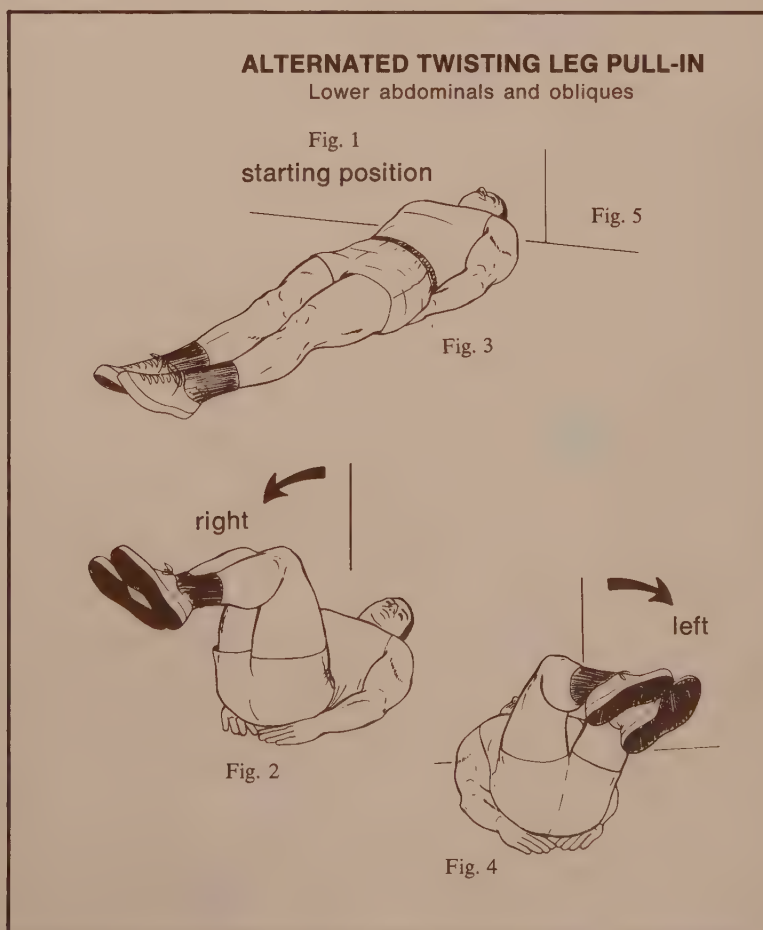
SEATED INCLINE ALTERNATED LEG PULL-IN

Lower abdominals



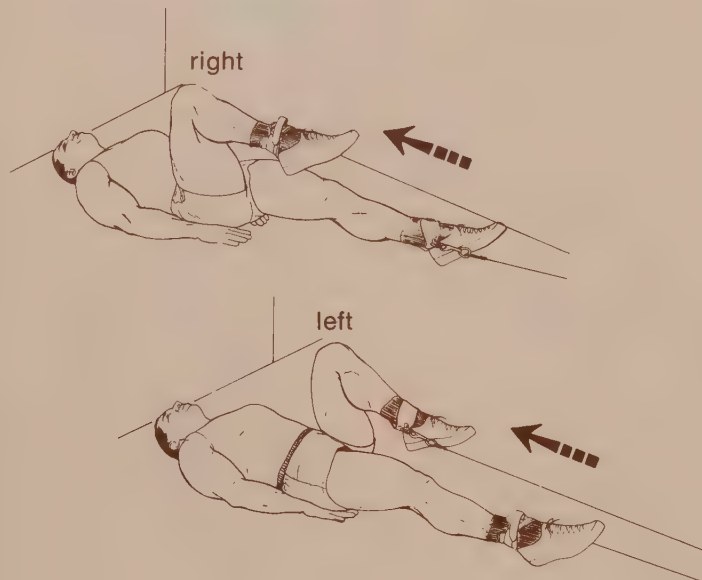
ALTERNATED TWISTING LEG PULL-IN

Lower abdominals and obliques



LOW PULLEY ALTERNATED LEG PULL-IN

Lower abdominals



ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your legs straight. Place your hands under your buttocks with your palms down. Inhale and bend your knees pulling your upper thighs up until they are vertical. Return to starting position and exhale.

■ Low Pulley Alternated Leg Pull-In

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your legs straight. Place your hands under your buttocks with your palms facing down. Inhale and bend your right knee pulling your right thigh up until it is vertical. As you commence to lower your right leg to starting position, you then begin to raise your left leg up to a vertical position. As one leg goes up the other will come down.

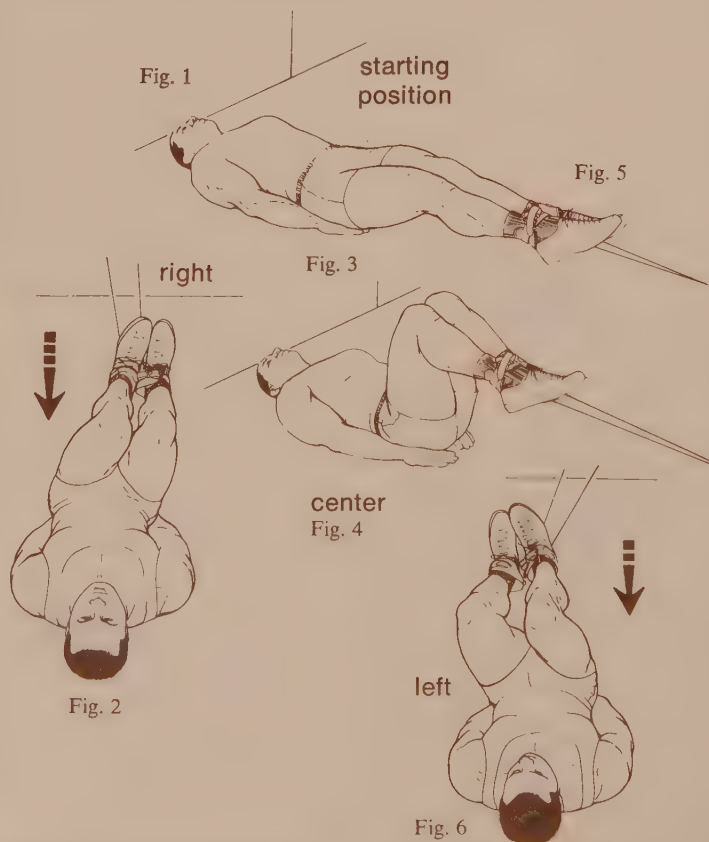
■ Low Pulley Twisting Leg Pull-In

Lower abdominals and obliques

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your legs straight. Place your hands under your buttocks with your palms facing down. Twist your hips to a slight right angle and hold this twist as you pull your legs up, bending your knees, until your upper thighs are vertical but your lower legs are parallel to the floor. Return to starting position and exhale. Do the prescribed number of repetitions of the right side and then change the position of the angle to the left and repeat the same number of repetitions.

LOW PULLEY COMPOUND LEG PULL-IN

Lower abdominals and obliques



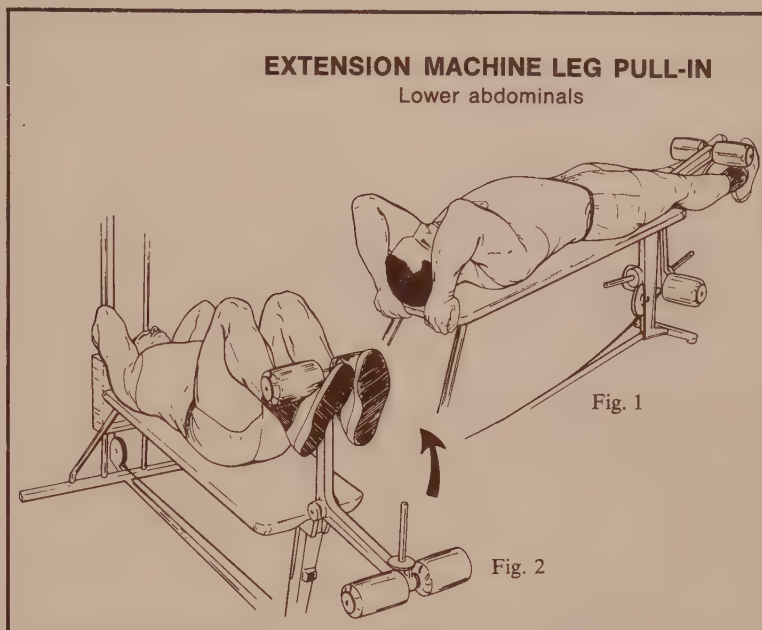
■ Low Pulley Compound Leg Pull-In

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your legs straight. Place your hands under your buttocks with your palms facing down. Twist your hips to a slight right angle and hold the twist as you pull your legs up, bending your knees, until your upper thighs are vertical and your lower legs are parallel to the floor. Now, twist to a straight ahead position and straighten your legs out to full length in front of you until they nearly touch the floor. Bring them back to vertical and change the position of your hips to the left

and extend your legs out to full length to the left of you until they nearly touch the floor. Keeping the twist to the left, raise your legs back to vertical and then to the middle and out full length. Back to vertical and to the right and out. The movement goes: right, center, left, center, right, center, left, center.

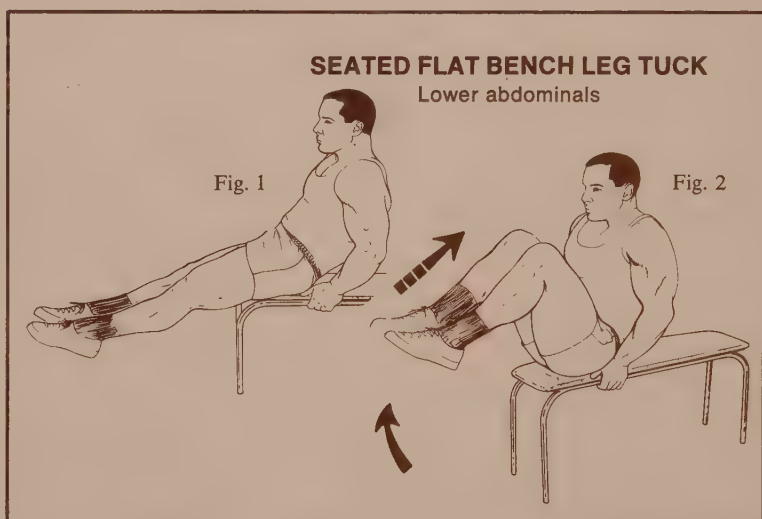
■ Extension Machine Leg Pull-In

Lie back on a leg extension machine and grasp either the back of the board or the bar behind your head for support. Place the upper half of your feet behind the pads used for bicep curls and pull your knees up to a vertical position. Pause and then lower the pads to starting position. Inhale as you commence the pull and exhale at the finish of the movement. Keep tension on your abdominals while doing the exercise.



■ Seated Flat Bench Leg Tuck

Sit at the end of a bench and place your hands behind your buttocks grasping the bench for support. Sit back slightly and raise your feet about six inches off the floor. Inhale and bend your knees while you come forward slightly with your torso so your upper thighs nearly touch your chest. Return to starting position and exhale. Keep tension on the abdominals during the exercise.



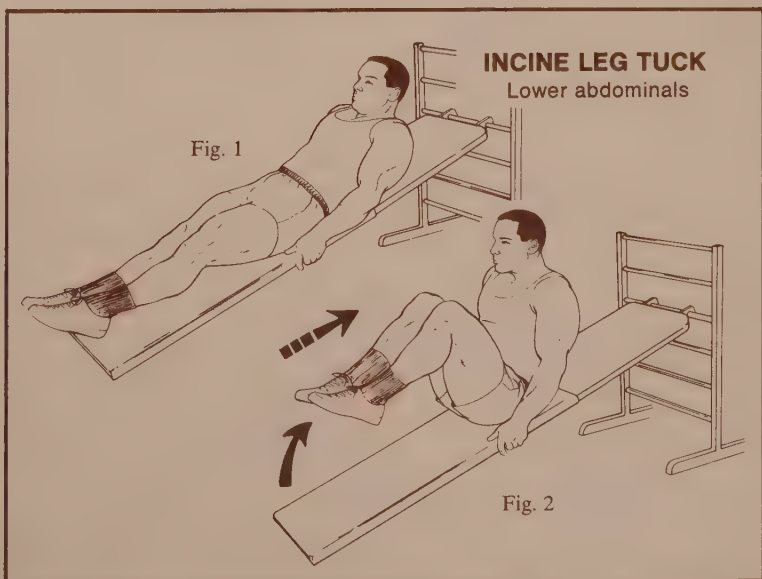
▲ Incline Leg Tuck

Position a sit-up board on a 25-30° angle. Sit on the board so your feet are on the down end. Grasp the sides of the incline board just behind your buttocks. Sit back slightly and raise your feet about three inches off the board. Inhale and bend your knees while you come forward slightly with your torso so your upper thighs nearly touch your chest. Return to starting position and exhale. Do not let your feet touch the board once you have started the exercise.

■ Seated Floor Leg Tuck

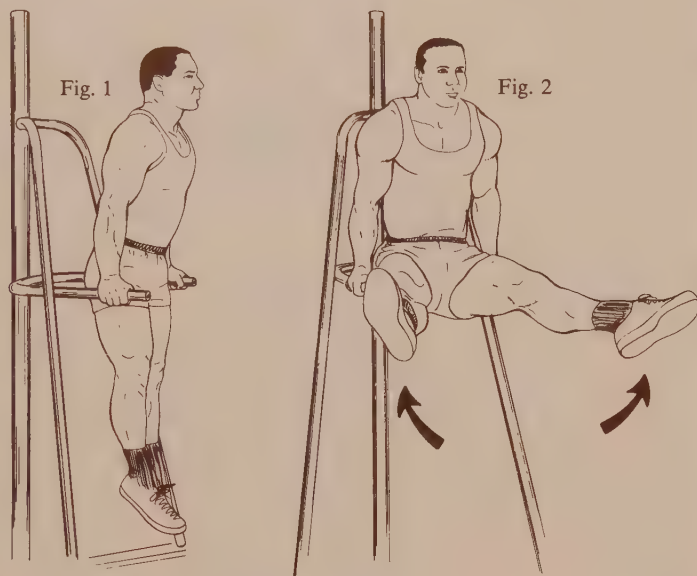
Lower abdominals

Sit on the floor and place your hands on the floor with your palms down behind your buttocks. Sit back slightly with your legs straight out in front of you. Raise your feet about six inches off the floor. Inhale and bend your knees while you come forward slightly with your torso so your upper thighs nearly touch your chest. Return to starting position and exhale. Keep tension on the abdominals during the exercise.



DIP STAND V LEG RAISE

Lower abdominals



■ Dip Stand V Leg Raise

Position yourself on a dip stand facing away from the machine with your body being supported by your arms having the elbows locked out. Hanging in a vertical position, inhale and raise your legs up in a V position about waist high. Return to starting position and exhale.

▲ V Leg Raise

Lower abdominals

Lie supine on the floor and place your hands under your buttocks with palms facing down. Keep your legs straight and knees locked out. Inhale and raise your legs up in a V position above your waist. Return to starting position and exhale.

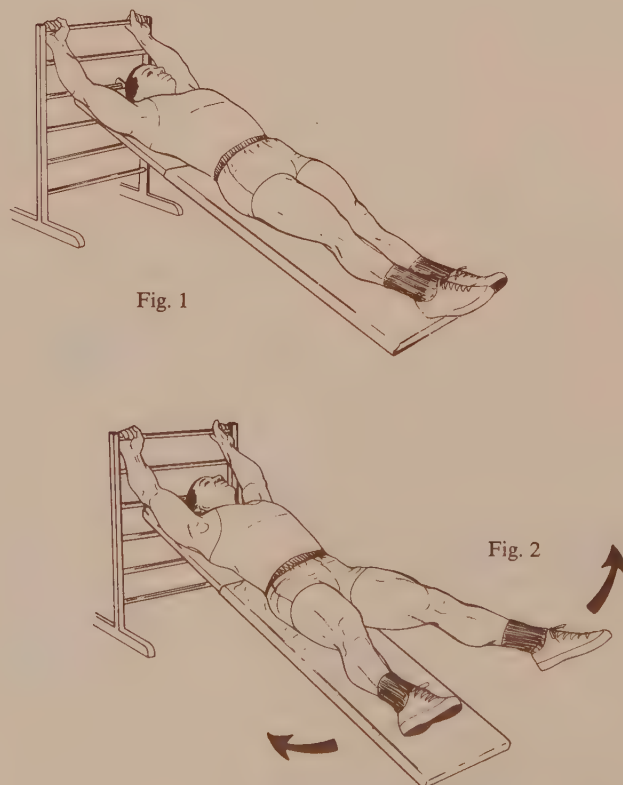
▲ Flat Bench V Leg Raise

Lower abdominals

Lie on a flat bench with your legs off the end of the bench. Place your hands under your buttocks with palms facing down. Keep your legs straight and knees locked out. Inhale and raise your legs up in a V position above you waist. Return to starting position and exhale. Your feet should be about three inches off the floor at the start of each repetition.

INCLINE V LEG RAISE

Lower abdominals



▲ Seated Flat Bench V Leg Raise

Lower abdominals

Sit on the end of a flat bench with your legs straight out in front of you on the floor. Place your hands behind your buttocks and grasp the outer sides of the bench for support. With your legs locked out, inhale and raise your legs in a V position slightly above your waist. Return to starting position and exhale. Your feet should be about three inches off the floor at the start of each repetition.

■ Incline V Leg Raise

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold you in a stationary position. Keep your legs straight and your knees locked out. Inhale and raise your legs up in a V position as close to vertical as possible and then return them to starting position and exhale. Your feet should be about three inches off the board at the start of each repetition.

■ Seated Incline V Leg Raise

Position a sit-up board on a 25-30° angle. Sit down on the board with your back to the high side with your legs straight out in front

of you resting on the board. Place your hands behind your buttocks and grasp the outer sides of the board for support. Inhale and raise your legs up in a V position until your body is at about a 45° angle. Return to starting position and exhale. Your feet should be about three inches off the board at the start of each repetition.

■ Vertical Bench V Leg Raise

Position yourself on a vertical abdominal bench with your body being supported by your arms having your shoulders locked out. Hanging in a vertical position, with your legs locked out, inhale and raise your legs in a V position to waist high level. Return to starting position and exhale.

■ Chinning Bar V Leg Raise

Lower abdominals

Stand on a bench and grasp a chinning bar with your palms facing down. Use about a twenty-four inch grip. Step off the bench and support your weight with your arms which are held straight. With your legs straight and your knees locked out, inhale and raise your legs in a V position to waist high level. Return to starting position and exhale.

● Hip Roll

Lie on the floor and place your hands under your buttocks with your palms facing down. Bend your knees and plant your feet firmly on the floor. Inhale and lower your legs down to the right side until your upper thigh touches the floor. Return to starting position and go to the left side using the same motion. You must do all of the bending at your waist. Do not let your shoulders come off the floor.

▲ Incline Hip Roll

Lower abdominals and obliques

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold a stationary position. Bend your knees and plant your feet firmly on the board. Inhale and lower your legs down to the right side of you until your upper thigh nearly touches the board. Return to starting position and go to the left side using the same motion. You must do all of the bending at your waist. Do not let your shoulders come off the board.

■ Three Way Leg Raise

Lower abdominals

This is a combination of three different abdominal exercises. You will perform all

SEATED INCLINE V LEG RAISE

Lower abdominals



Fig. 1



Fig. 2

VERTICAL BENCH V LEG RAISE

Lower abdominals

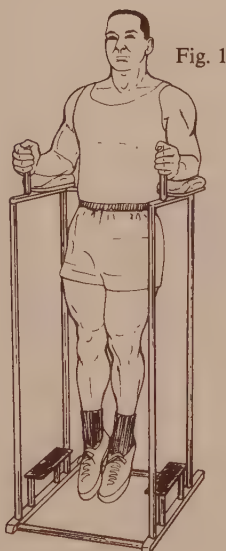


Fig. 1

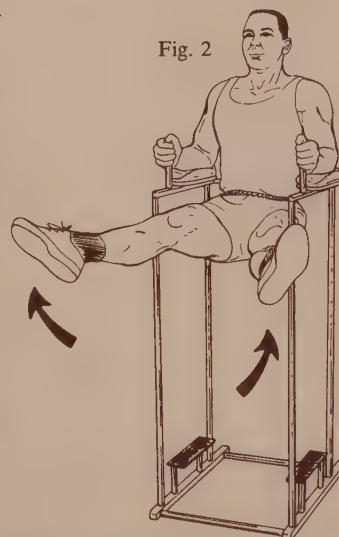
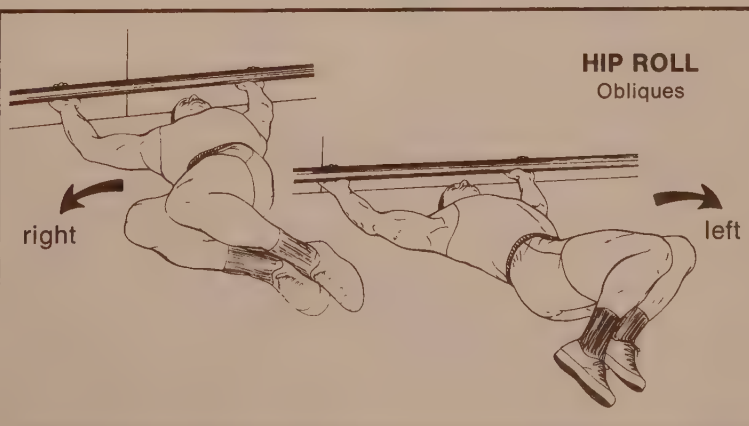


Fig. 2



HIP ROLL

Obliques

INCLINE THREE WAY LEG RAISE

Lower abdominals

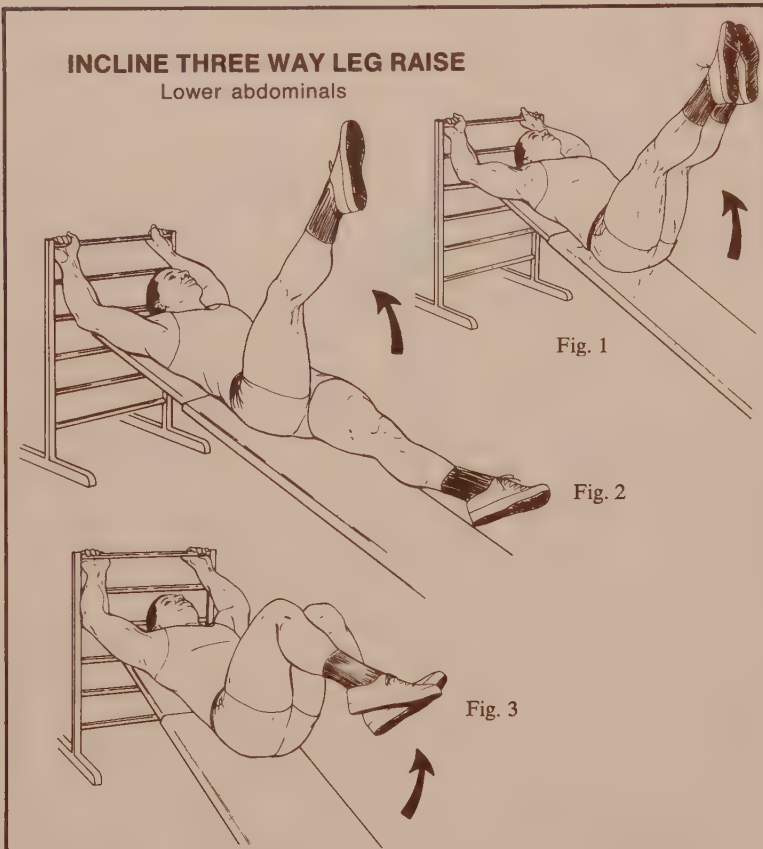


Fig. 1

Fig. 2

Fig. 3

of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Leg raise
- #2 Alternated leg raise
- #3 Leg pull-in

■ Incline Three Way Leg Raise

This is a combination of three different abdominal exercises. You will perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Incline leg raise
- #2 Incline alternated leg raise
- #3 Incline leg pull-in

■ Seated Incline Three Way Leg Raise

Lower abdominals

This is a combination of three different abdominal exercises. You will perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated incline leg raise
- #2 Seated incline alternated leg raise
- #3 Seated incline leg pull-in

■ Flat Bench Three Way Leg Raise

This is a combination of three different abdominal exercises. You will perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Flat bench leg raise
- #2 Flat bench alternated leg raise
- #3 Flat bench leg pull-in

■ Seated Flat Bench Three Way Leg Raise

Lower abdominals

This is a combination of three different abdominal exercises. You will perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated flat bench leg raise
- #2 Seated flat bench alternated leg raise
- #3 Seated flat bench leg pull-in

■ Chinning Bar Three Way Leg Raise

Lower abdominals

This is a combination of three different abdominal exercises. You will perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Chinning bar leg raise
- #2 Chinning bar alternated leg raise
- #3 Chinning bar leg pull-in

FLAT BENCH THREE WAY LEG RAISE

Lower abdominals

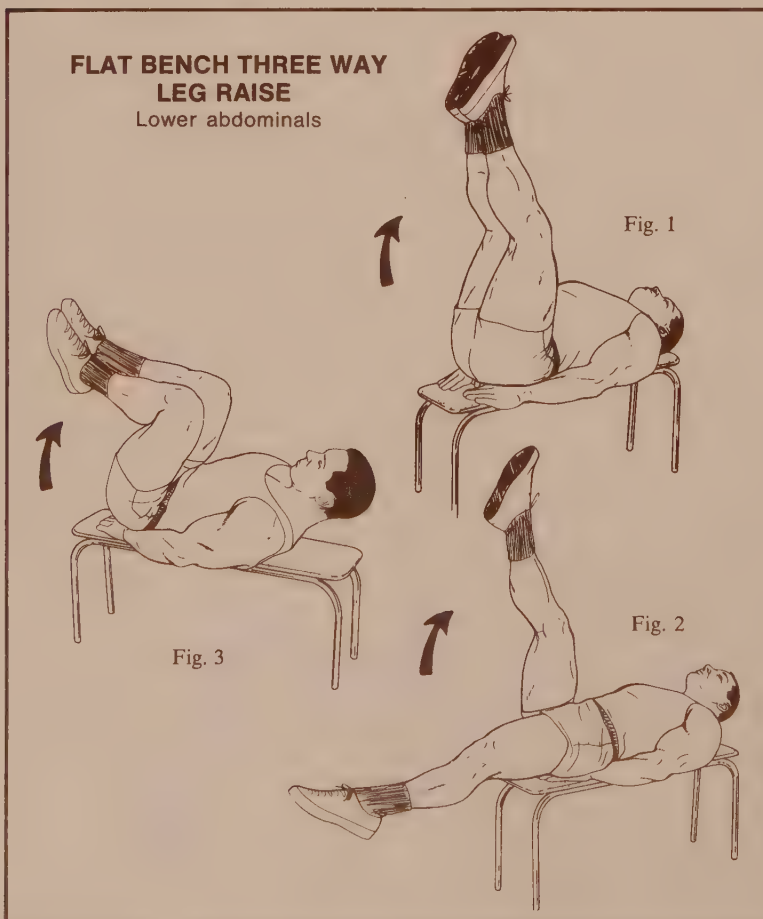


Fig. 1

Fig. 2

Fig. 3

■ Dip Stand Three Way Leg Raise

This is a combination of three different abdominal exercises. You will perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Dip stand leg raise
- #2 Dip stand alternated leg raise
- #3 Dip stand leg pull-in

■ Vertical Bench Three Way Leg Raise

Lower abdominals

This is a combination of three different abdominal exercises. You will perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Vertical bench leg raise
- #2 Vertical bench alternated leg raise
- #3 Vertical bench leg pull-in

● Lying Side Leg Raise

Lie on your left side with your body tilted slightly to the front. Inhale and raise your right leg up until it is nearly vertical with the floor. Keep the leg straight and do not bend forward at the waist. Exhale as you return the leg to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

▲ Incline Side Leg Raise

Hips and obliques

Lie on your left side on an incline bench with your body tilted slightly to the front. Inhale and raise your right leg up until it is nearly parallel with your body. Keep the leg straight and do not bend forward at the waist. Exhale as you return the leg to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

● STANDING SIDE LEG RAISE

Hips and obliques

● Kneeling Side Leg Raise

Hips

Kneel on a flat bench with your left knee on the bench and your arms locked out holding on to the bench to support your upper body. Have your right leg hanging in a vertical position from the hip down. Inhale and raise your right leg out to the side until it is nearly parallel. Be sure not to bend the leg at the knee while you are performing the exercise. Exhale as you return your leg to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

DIP STAND THREE WAY LEG RAISE

Lower abdominals

Fig. 1



Fig. 2

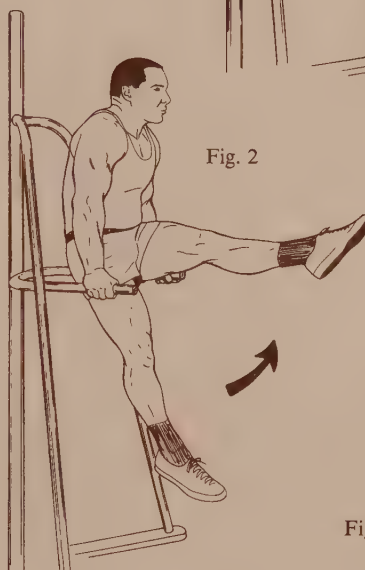


Fig. 3



LYING SIDE LEG RAISE

Hips and obliques

Fig. 1

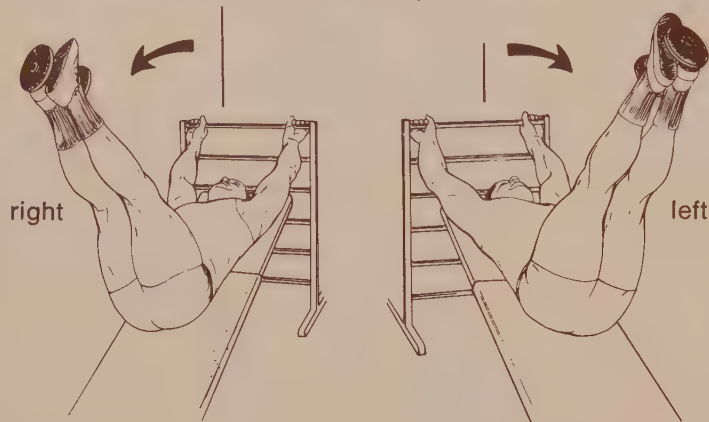


Fig. 2



INCLINE WEIGHTED TWISTING LEG RAISE

Lower abdominals and obliques



★ Dip Stand Weighted Leg Raise

Lower abdominals and obliques

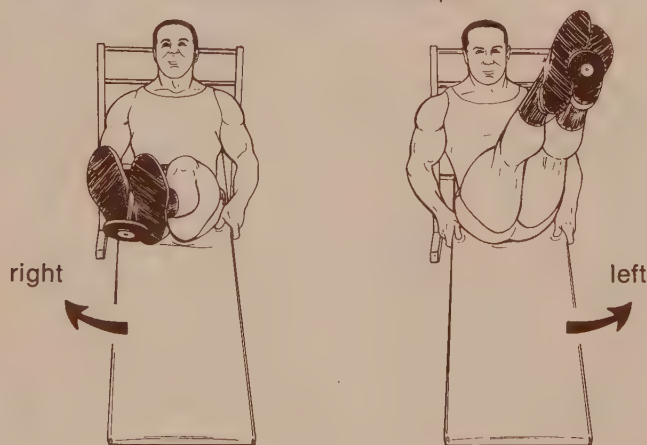
With a dumbbell placed between your feet to hold it stationary, position yourself on a dip stand facing away from the machine with your body being supported by your arms, having your elbows locked out. Hanging in a vertical position, inhale and raise your legs until they are slightly above parallel with the floor. Let your legs down until your body is again in a vertical position and exhale.

★ Incline Weighted Twisting Leg Raise

Position a sit-up board on a 25-30° angle. Place a light dumbbell between your feet and lie back on the board with your head at the top. Keep your legs straight and your knees locked out. Twist your hips slightly to the right and raise your legs at a slight angle to the right until they are nearly vertical. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of the angle to the left and repeat the same number of repetitions.

SEATED INCLINE WEIGHTED TWISTING LEG RAISE

Lower abdominals and obliques

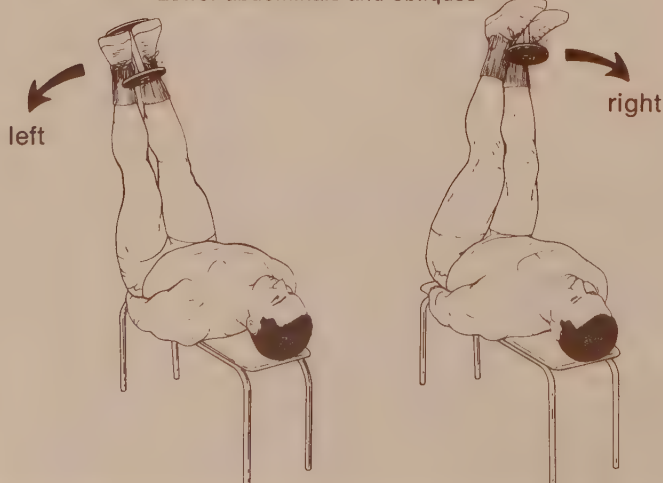


★ Seated Incline Weighted Twisting Leg Raise

Position a sit-up board on a 25-30° angle. Place a light dumbbell between your feet and sit on the board with your back towards the top. Place your hands behind your buttocks and hold on to the sides of the board for support. Keep your legs straight and your knees locked out. Twist your hips slightly to the right and raise your legs at a slight angle to the right until they are nearly vertical. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of the angle to the left and repeat the same number of repetitions.

FLAT BENCH WEIGHTED TWISTING LEG RAISE

Lower abdominals and obliques



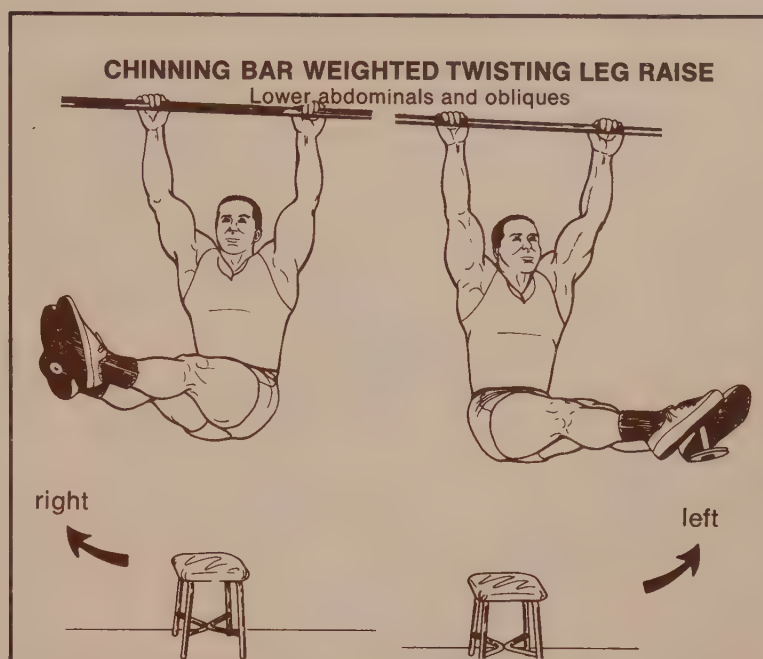
★ Flat Bench Weighted Twisting Leg Raise

Place a light dumbbell between your feet and sit on the end of a flat bench. Place your hands under your buttocks with your palms facing down. Lie back on the bench with your head down and your legs straight. Twist your hips slightly to the right and raise your legs at a slight angle to the right until they are nearly vertical. Return to starting position and exhale. Do not rest your feet on the floor once you have begun

the exercise. Do the prescribed number of repetitions on the right side and then change the position of the angle to the left and repeat the same number of repetitions.

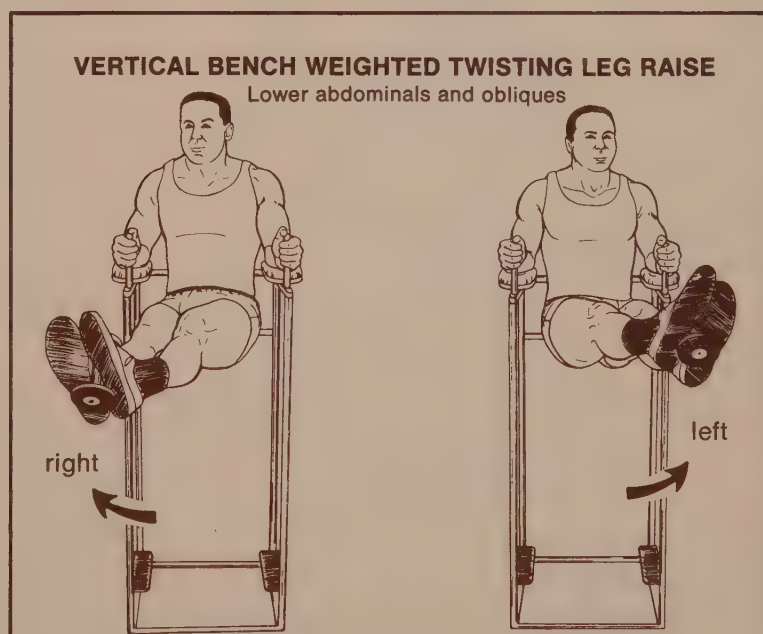
★ Chinning Bar Weighted Twisting Leg Raise

With a dumbbell placed between your feet to hold it stationary, stand on a bench and grasp a chinning bar with your palms facing down. Use about a twenty-four inch grip. Step off the bench and support your weight with your arms which are held straight. Twist your hips slightly to the right and raise your legs at a slight angle to the right until they are nearly parallel. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of the angle to the left and repeat the same number of repetitions.



★ Vertical Bench Weighted Twisting Leg Raise

With a dumbbell placed between your feet to hold it stationary, position yourself on a vertical abdominal bench with your body being supported by your arms having your shoulders locked out. Hanging in a vertical position, twist your hips slightly to the right and raise your legs at a slight angle to the right until they are nearly parallel. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of the angle to the left and repeat the same number of repetitions.

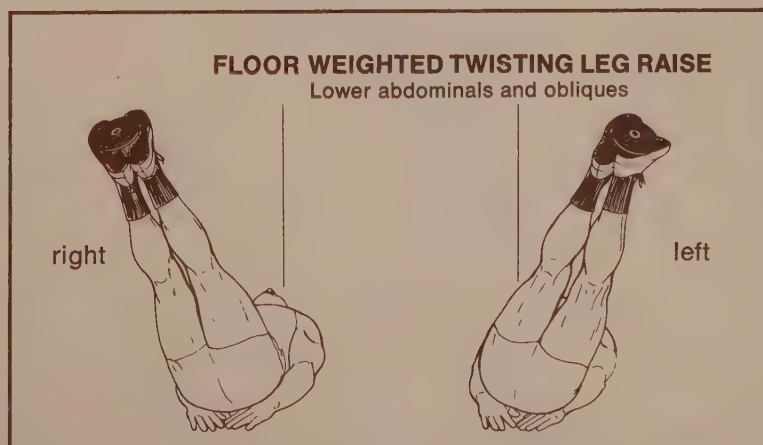


★ DIP STAND WEIGHTED TWISTING LEG RAISE

Lower abdominals and obliques

★ Floor Weighted Twisting Leg Raise

Place a light dumbbell between your feet and lie on the floor with your head down and your hands under your buttocks with your palms facing down. Keep your legs straight and knees locked. Twist your hips slightly to the right and raise your legs at a slight angle to the right until they are nearly vertical. Return to starting position and exhale. Do not rest your feet on the floor once you have begun the exercise. Do the prescribed number of repetitions on the right side and then change the position of the angle to the left and repeat the same number of repetitions.



INCLINE SIDE LEG CIRCLE

Hips

Fig. 1

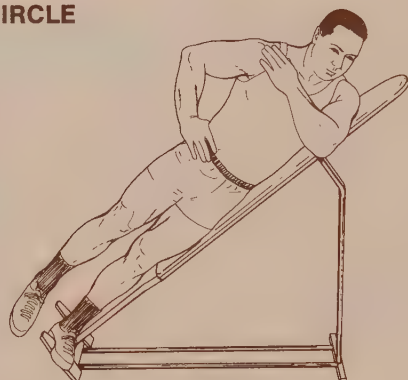


Fig. 2

▲ Incline Side Leg Circle

Lie on your left side on an incline bench with your body tilted slightly to the front. Inhale and raise your right leg up and in a circular motion. The top of the circular motion should be nearly parallel with your body. Keep your leg straight and do not bend forward at the waist. Exhale as you return the leg to starting position. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

■ Incline Leg Circle

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold yourself in a stationary position. Keep your legs straight and have your knees locked out. Inhale and raise your feet about three inches off the board. Commence to move both legs to the right in a full circular motion making a circle with your two feet that is about forty-eight inches in diameter. Perform the prescribed number of repetitions going one way and then change and do the same number of repetitions the other way.

All exercises below are for lower abdominals.

INCLINE LEG CIRCLE

Lower abdominals and obliques

Fig. 1

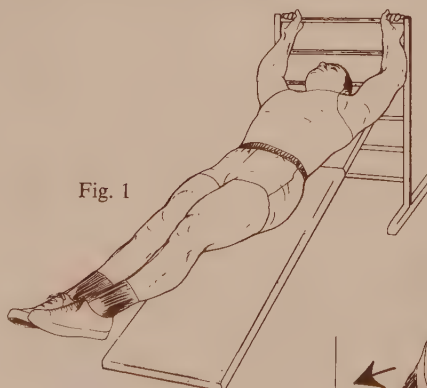


Fig. 2



▲ LEG CIRCLE

▲ FLAT BENCH LEG CIRCLE

■ SEATED FLAT BENCH LEG CIRCLE

■ VERTICAL BENCH LEG CIRCLE

■ SEATED INCLINE LEG CIRCLE

■ DIP STAND LEG CIRCLE

■ CHINNING BAR LEG CIRCLE

▲ Lying Leg Circle

Lower abdominals

Lie on the floor and place your hands under your buttocks with your palms down. Keep your legs straight and have your knees locked out. Inhale and raise your feet about three inches off the floor. Commence to move both legs to the right in a full circular motion, making a circle with your two feet that is about forty-eight inches in diameter. Perform the prescribed number of repetitions going one way and then change and do the same number of repetitions the other way.

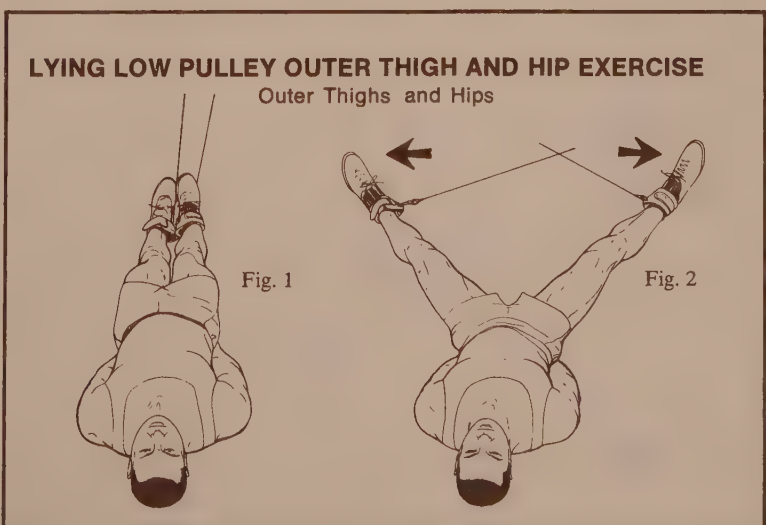
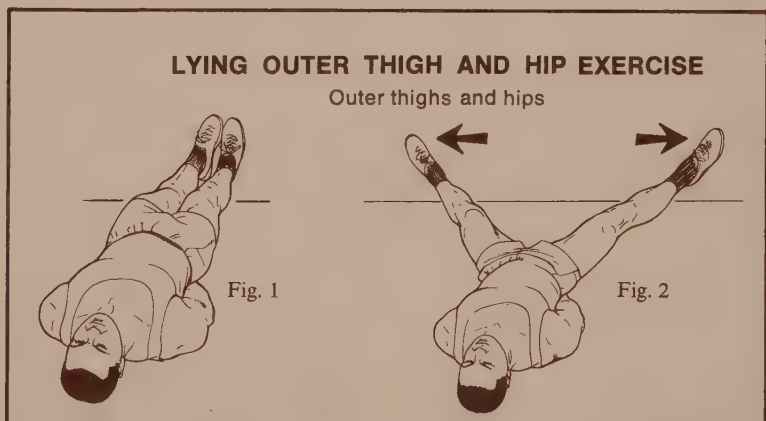
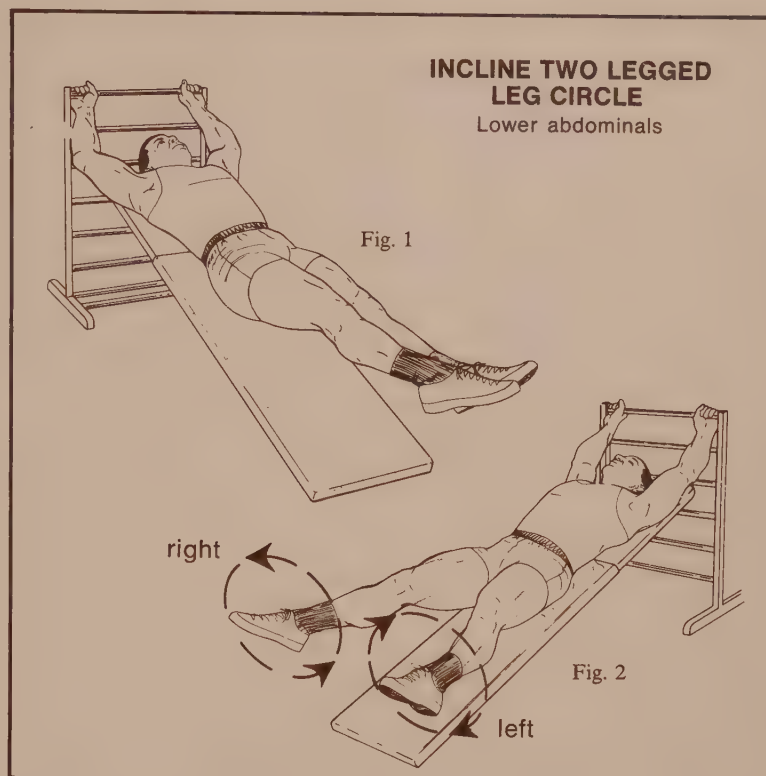
■ Incline Two Legged Leg Circle

Position a sit-up board on a 25-30° angle. Lie on the board with your head at the top. Use your hands to hold yourself in a sta-

tionary position. Keep your legs straight and your knees locked out. Inhale and raise your feet about three inches off the board. Commence to move both of your legs in the opposite direction, making them go in a circular motion. The circles should be about twenty-four inches in diameter. Perform the prescribed number of repetitions going in one direction and then change the direction and perform the same number of repetitions again.

All exercises below are for lower abdominals.

- **SEATED INCLINE TWO LEGGED LEG CIRCLE**
- ▲ **FLAT BENCH TWO LEGGED LEG CIRCLE**
- **SEATED FLAT BENCH TWO LEGGED LEG CIRCLE**
- **CHINNING BAR TWO LEGGED LEG CIRCLE**
- **VERTICAL BENCH TWO LEGGED LEG CIRCLE**
- **DIP STAND TWO LEGGED LEG CIRCLE**
- ▲ **LYING TWO LEGGED LEG CIRCLE**



▲ **Lying Outer Thigh and Hip Exercise**
Lie on the floor in a supine position with your legs straight out in front of you. Inhale and bring both feet out to the sides as far as it is comfortable for you, at the same time keeping them about four inches off the floor throughout the entire exercise. Be sure to keep the knees locked out and the legs straight. Return them to starting position and exhale.

▲ **Lying Low Pulley Outer Thigh and Hip Exercise**
Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both ankles to the two lower pulley cables, having your right ankle strapped to the left cable and your left ankle strapped to the right cable. (This will cross the cables causing a further range of resisted motion while doing the exercise.) Lie back far enough from the machine to raise the weight stacks with your legs out straight. Place your hands under your buttocks with your palms facing down. Keep your legs together and your knees locked while you raise your feet off the floor about three inches. Inhale and spread your legs out to both sides as far as you comfortably can keeping them fairly close to the floor. Return to starting position and exhale.

LOW PULLEY THREE WAY LEG RAISE

Lower abdominals

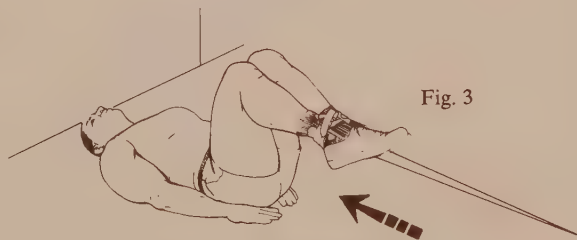
Fig. 1



Fig. 2



Fig. 3



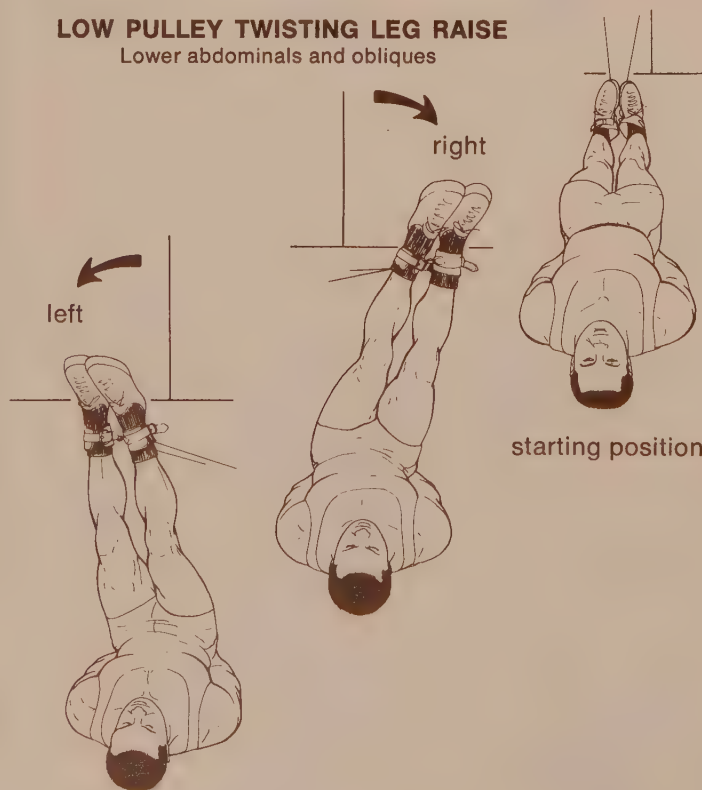
LOW PULLEY TWISTING LEG RAISE

Lower abdominals and obliques

right

left

starting position



Low Pulley Three Way Leg Raise

This is a combination of three different lower abdominal exercises done on the low wall pulley. You will perform all of the first exercise and then immediately perform the entire second exercise before going to the final exercise.

#1 Low Pulley Leg Raise

#2 Low Pulley Alternated Leg Raise

#3 Low Pulley Leg Pull-In

Low Pulley Leg Raise

Lower abdominals

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your feet straight. Place your hands under your buttocks with your palms facing down. Inhale and raise both feet straight up with your knees locked until they are nearly vertical with the floor. Return to starting position and exhale.

Low Pulley Alternated Leg Raise

Lower abdominals

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both ankles to the lower pulley cables and lie back far enough to raise the weight stacks with your feet straight. Place your hands under your buttocks with your palms facing down. Inhale and raise your right leg straight up until it is nearly vertical. As you commence to lower your right leg back to starting position, start to raise your left leg so as one is going down the other is coming up. You will inhale as you raise your right leg and exhale as you lower it. A movement with both legs is considered one repetition.

Low Pulley Twisting Leg Raise

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your feet straight. Place your hands under your buttocks with your palms facing down. Twist your hips to a slight right angle and hold this twist as you raise your legs up until they are nearly parallel. Make an effort to keep your knees locked. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the position of the angle to the left and repeat the same number of repetitions.

Low Pulley Alternated Twisting Leg Raise

Lower abdominals and obliques

Lie on the floor in front of a wall pulley with your feet towards the machine. Strap both

ankles to the two lower pulley cables and lie back far enough to raise the weight stacks with your legs straight. Place your hands under your buttocks with your palms facing down. Twist your hips to a slight right angle and hold the twist as you raise your legs straight up with your knees locked until they are nearly vertical. Now, twist the position of your hips to the left and lower your legs down until they nearly touch the floor on the left side. Keeping the twist to the left, raise your legs back to vertical and then over to the right and down. The movement goes: right, left, right, left, right, left.

▲ Standing Low Pulley Side Leg Raise

Stand erect with your left side facing a wall pulley. Put a chair in front of you to hold on to with your hands. Place an ankle strap on your right ankle and step back far enough from the pulley so that you are supporting the weight stack. Start the exercise with your right foot in front of your left foot. Inhale and raise your right leg out to the side until it is nearly parallel. Be sure to keep your back straight and do not swing from side to side. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

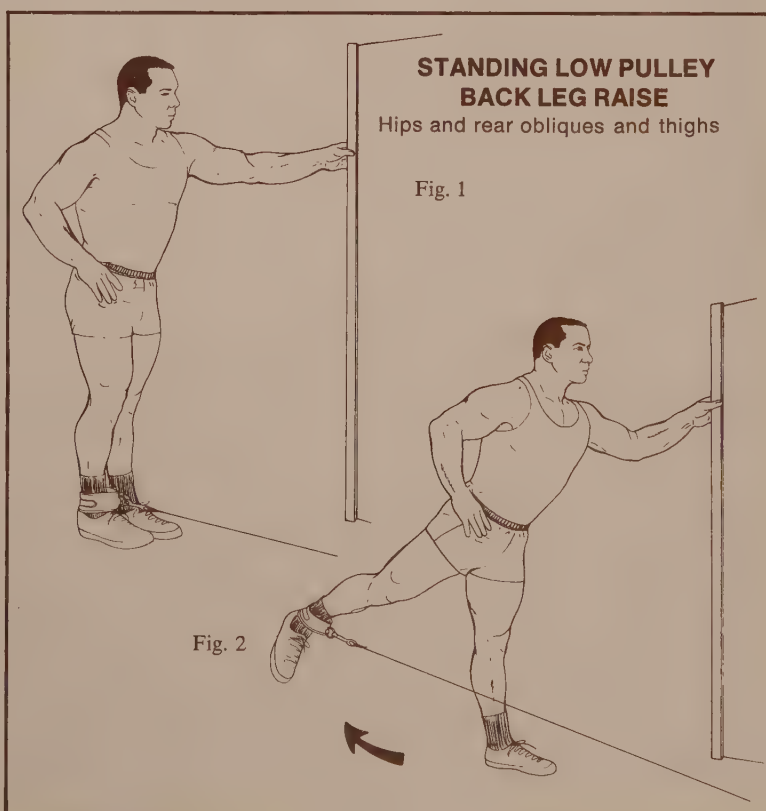
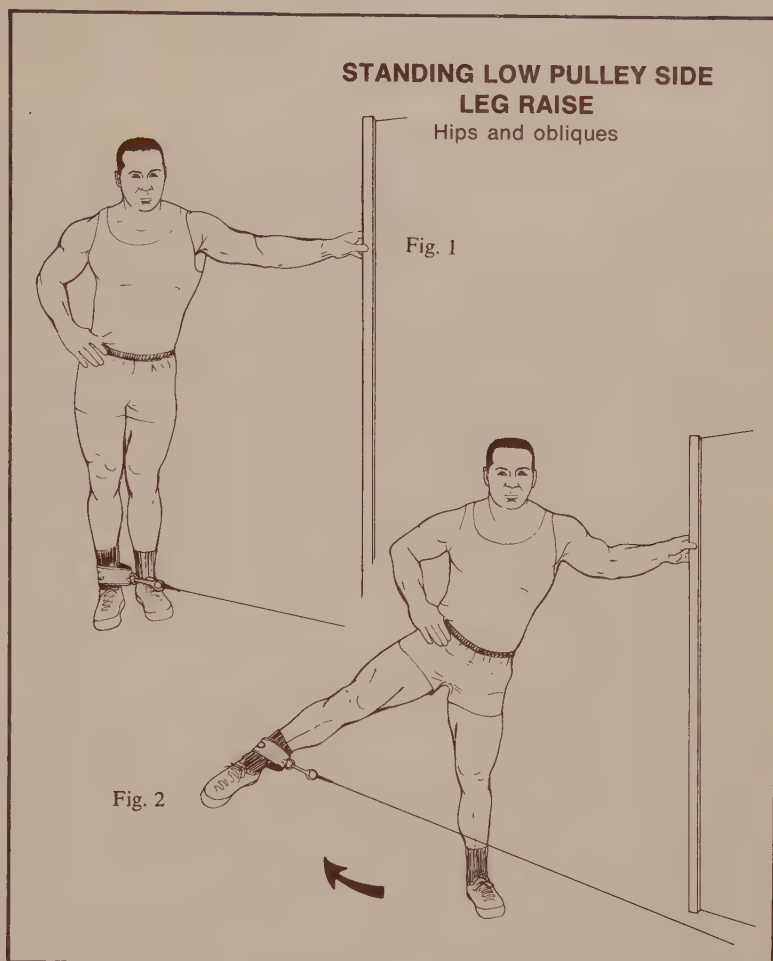
■ Standing Low Pulley Front Leg Raise

Hips, Thighs and Lower abdominals

Stand facing away from a wall pulley. Place a chair in front of you to hold on to with your hands. Place an ankle strap on your right ankle and step forward enough from the pulley to support the weight stack. Start the exercise with your right foot just ahead of your left foot. Inhale and raise your right leg straight up to the front until it is parallel. Be sure to keep your back straight and do not swing your torso backward or forward. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.

■ Standing Low Pulley Back Leg Raise

Stand erect in front of a wall pulley. Put a chair in front of you to hold on to with your hands. Place an ankle strap on your right ankle and step back far enough from the pulley so that you are supporting the weight stack. Inhale and raise your right leg straight back to the rear until it is nearly parallel. Return your leg back to starting position and exhale. Be sure to keep your back as straight as possible and do not bend to the front any more than necessary. Do the prescribed number of repetitions on the right leg and then do the same number of repetitions on the left leg.



Introduction to Chest Section

The chest is commonly thought of as the front of the upper trunk and comprised of the rib cage (consisting of twelve pairs of ribs) and the breastbone. The diaphragm is a muscle-like structure found between the chest cavity and the abdominal cavity and is the most important muscle of inspiration. There are numerous muscles which protect the chest and play an important role in athletics. The ones probably most associated with body building are the pectoralis major clavicular, pectoralis major sternal and pectoralis minor, all of which aid in some shoulder or upper-trunk stability. Almost every sport activity which requires upper-trunk action utilizes these muscles, especially swimming, gymnastics, wrestling, racquet sports, fencing, etc.

If your chest muscles are weak you may experience short-windedness as a result of insufficient muscular action upon the chest cavity, resulting in decreased vital lung capacity. Deep-breathing exercises help, but weight training programming aids in greater endurance proportionate to upper-body muscular strength. The more stable the diaphragm and chest, the greater vacuum caused in the lungs, therefore possibly becoming the major factor in

oxygenation of tissue and making the difference between fatigue and losing, or endurance and winning.

It should be noted that injury to the pectoral muscles and other associated chest muscles in weight training is usually caused by a wide hand grip while using a barbell, or dumbbells. Especially noted in such exercises as the bench press, or by performing overhead lifts which require some chest strength. In order to protect these muscles, reduce stress, and to help prevent reoccurring injuries, it may be best to decrease the distance between the hand grip and bring your elbows closer in to your sides when doing the aforementioned chest exercises.

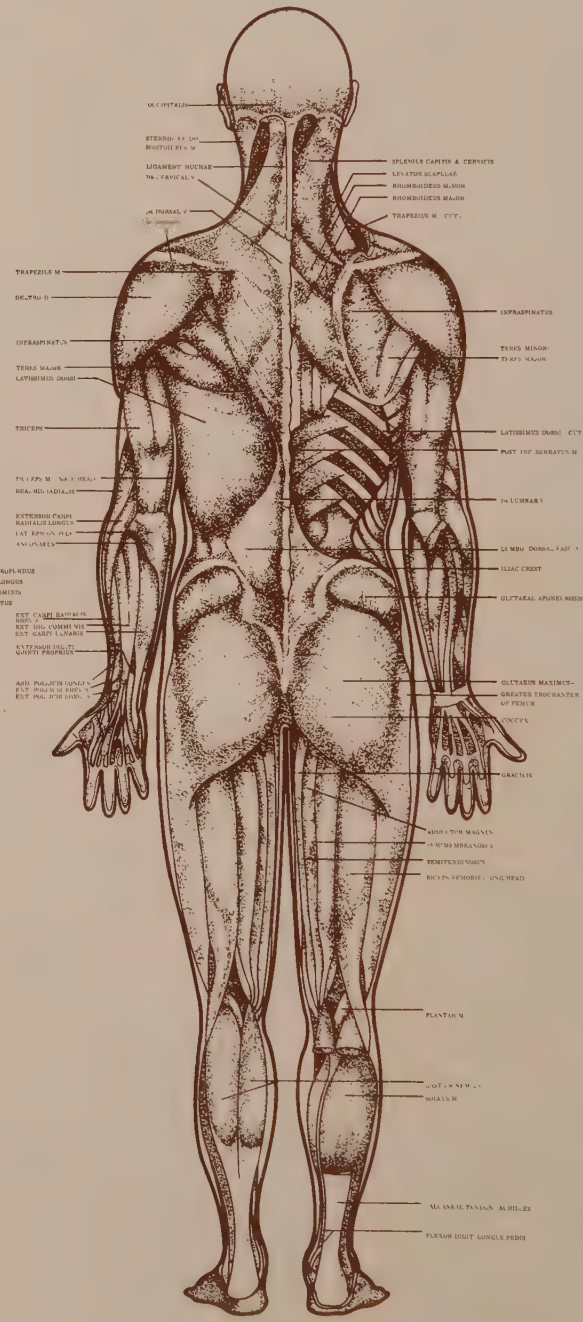
Muscle strain of the rib cage is common in athletic activities such as wrestling, judo, karate, boxing, football and other contact sports. There is no doubt that a properly outlined weight training program which incorporates exercises pertaining to better muscle tone and strengthening of the chest muscles is extremely important during preseasoning conditioning if the best efforts of an athlete are to be expected.

Chest section



Pearl's chest was a weak point in his physique during early years. Hard work paid dividends.

CHICAGO



Posterior View

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

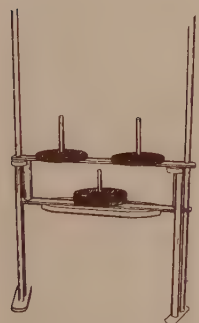
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

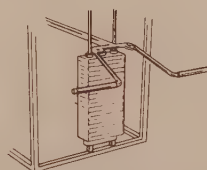
EQUIPMENT NEEDED FOR CHEST SECTION



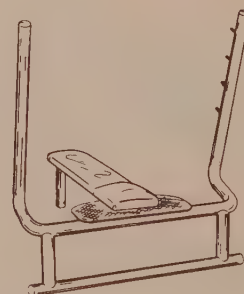
Wall Type Leg Press



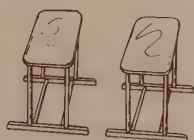
Inner Pec Machine



Universal Bench Press Part



Bench Press Bench



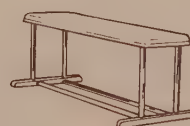
Two Short Benches



Barbell

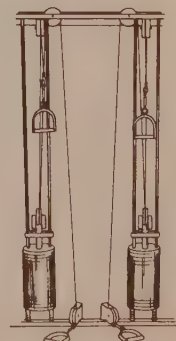


Olympic Bar



Flat Bench

High Wall Pulley



Pulley Handles

Low Wall Pulley



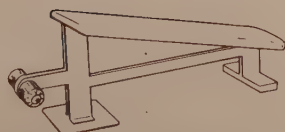
Dip Stand



Barbell Plate



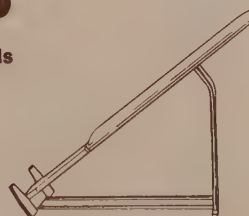
Dumbbells



Decline Bench



Stool



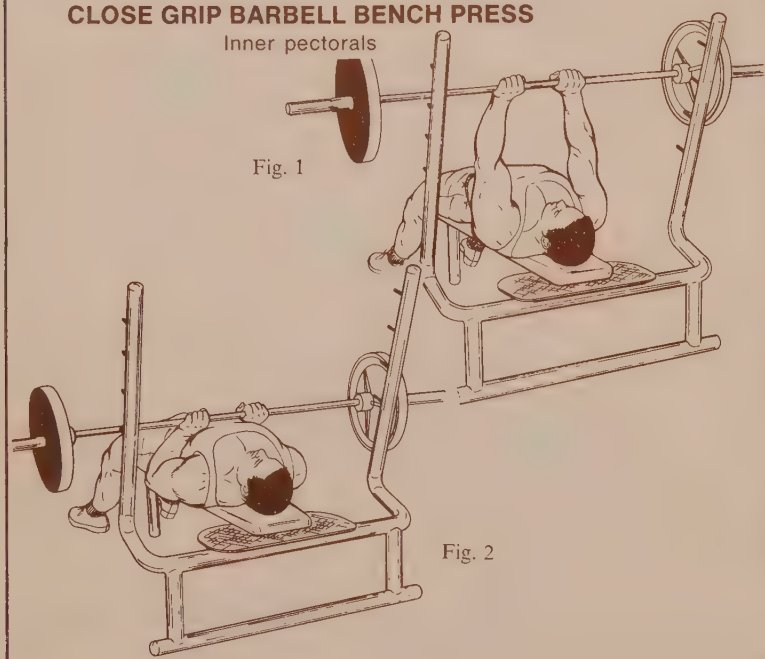
Incline Bench

CLOSE GRIP BARBELL BENCH PRESS

Inner pectorals

Fig. 1

Fig. 2

**▲ Close Grip Barbell Bench Press**

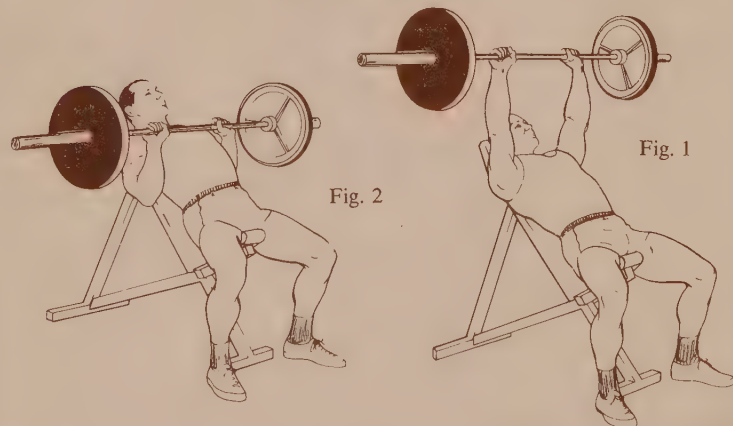
Lie in a supine position on a flat bench with your legs positioned at the sides of the bench and your feet flat on the floor. Using a hand grip that is approximately fourteen inches wide, bring the barbell to arm's length above the chest but in line with the shoulders. From this position, lower the barbell to the chest where it is about an inch below the nipples of the pectorals. Note from the illustrations that the elbows are in close to the sides of the chest in the down position. You should inhale as you lower the barbell to the chest and exhale as the barbell is pressed back to arm's length. A final note: do not relax and drop the weight to the chest but lower it and make a definite pause at the chest before pressing it back to starting position. Keep the head on the bench and do not arch your back too sharply as to raise your hips off the bench.

▲ Close Grip Incline Barbell Bench Press**CLOSE GRIP INCLINE BARBELL BENCH PRESS**

Inner and upper pectorals

Fig. 2

Fig. 1



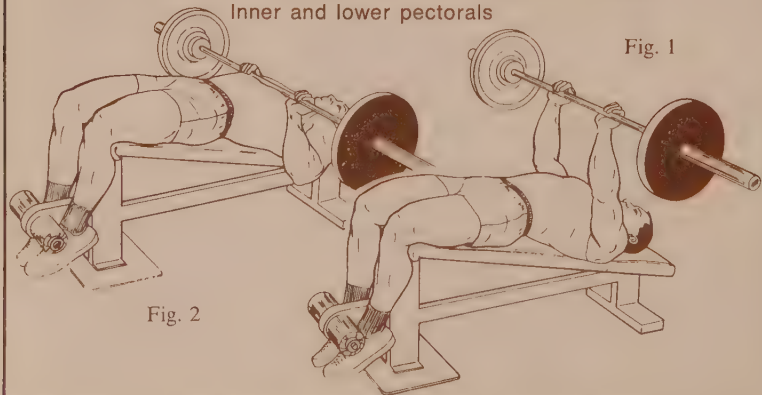
Lie back on an incline bench. Using a hand grip that is approximately fourteen inches wide, the barbell should be lowered from arm's length above the shoulders to a position on the upper chest that is about even with the nipples of the pectorals. Note that the elbows are held in close during the entire exercise. Inhale as you lower the weight to the chest and exhale as the barbell is pressed back to starting position. Do not relax and drop the weight to the upper chest but lower it with control, making a definite pause at the chest before pressing it back to arm's length. Keep your head on the bench and keep the chest high but do not let the hips raise off the bench.

▲ Close Grip Decline Barbell Bench Press**CLOSE GRIP DECLINE BARBELL BENCH PRESS**

Inner and lower pectorals

Fig. 1

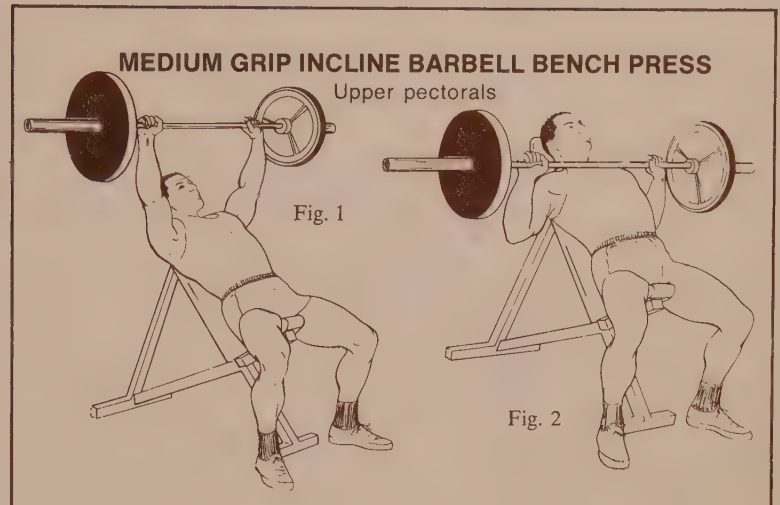
Fig. 2



Lie back on a decline bench. Using a hand grip that is about fourteen inches wide, the barbell should be lowered from arm's length above the middle of the pectoral muscles to a position on the lower chest that is about three inches below the nipples of the pectorals. Note that the elbows are held in close during the entire exercise. Inhale as you lower the weight to the chest and exhale as the barbell is pressed back to starting position. Do not relax and drop the weight on the chest but lower it in a controlled manner, making a definite pause at the chest before pressing it back to arm's length. Keep your head on the bench and your chest held high.

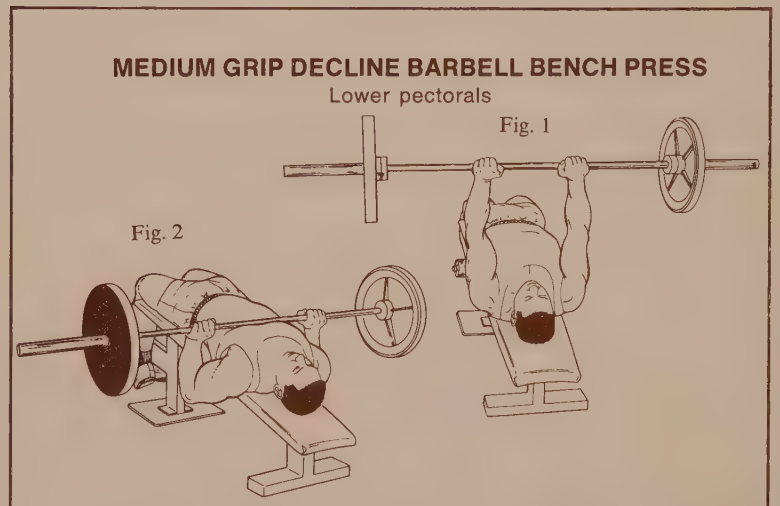
▲ Medium Grip Incline Barbell Bench Press

Lie back on an incline bench. Using a hand grip that is about six inches wider than your shoulder width, lower the barbell from arm's length above the shoulders to a position on the upper chest that is about three inches above the nipples of the pectorals. Note from the illustrations that the elbows are back. Inhale as you lower the weight to the upper chest and exhale as you press it back to arm's length above the shoulders. Do not relax and drop the weight to the upper chest but lower it in a controlled manner, making a definite pause at the upper chest before pressing it back to arm's length. Keep your head on the bench and hold your chest high but do not let the hips raise off the bench.



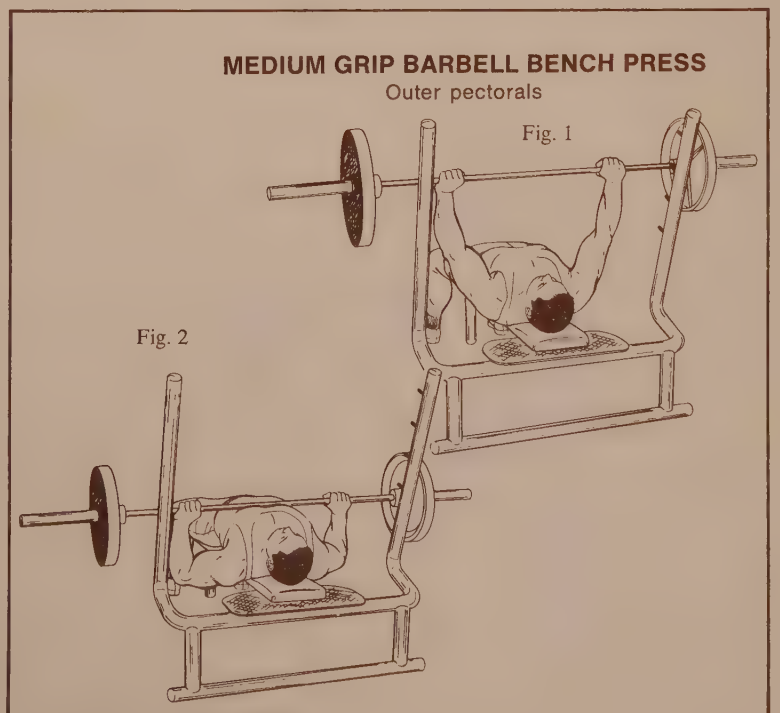
▲ Medium Grip Decline Barbell Bench Press

Lie back on a decline bench. Using a hand grip that is about six inches wider than shoulder width, the barbell should be lowered from arm's length above the middle of the pectoral muscles to a position on the lower chest that is about three inches below the nipples of the pectorals. Note that the elbows are back. Inhale as you lower the weight to the chest and exhale as the barbell is pressed back to starting position. Do not relax and drop the weight on the chest but lower it in a controlled manner, making a definite pause at the chest before pressing it back to arm's length. Keep the head on the bench and the chest held high.



▲ Medium Grip Barbell Bench Press

Lie in a supine position on a flat bench with your legs positioned at the sides of the bench and your feet flat on the floor. Using a hand grip that is about six inches wider than your shoulder width, bring the barbell to arm's length above the chest but in line with the shoulders. Lower the barbell to a position on the chest that is about an inch below the nipples of the pectorals. Note from the illustration that the elbows are back and the chest is held high. Inhale as the barbell is lowered to the chest and exhale as you push the barbell back to arm's length. Do not relax and drop the weight on the chest but lower it with complete control making a definite pause at the chest before pressing it back to starting position. Keep the head on the bench and do not arch the back too sharply as to raise your hips off the bench.

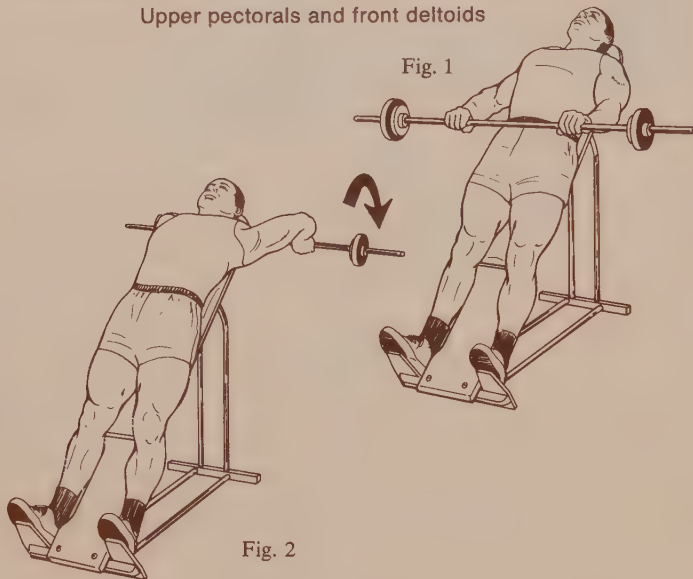


▲ Medium Grip Incline Front Barbell Raise

Lie on an incline bench. Using a hand grip that is about fourteen inches apart, place

MEDIUM GRIP INCLINE FRONT BARBELL RAISE

Upper pectorals and front deltoids



the barbell on your upper thighs and lock the elbows to keep the arms straight. From this position take a deep breath and raise the barbell up and over the waist, chest and head until it goes as far back behind the head as is comfortable. Then lower the weight back to the upper thigh letting your air out. You must breathe heavily, keep the chest high and arms straight.

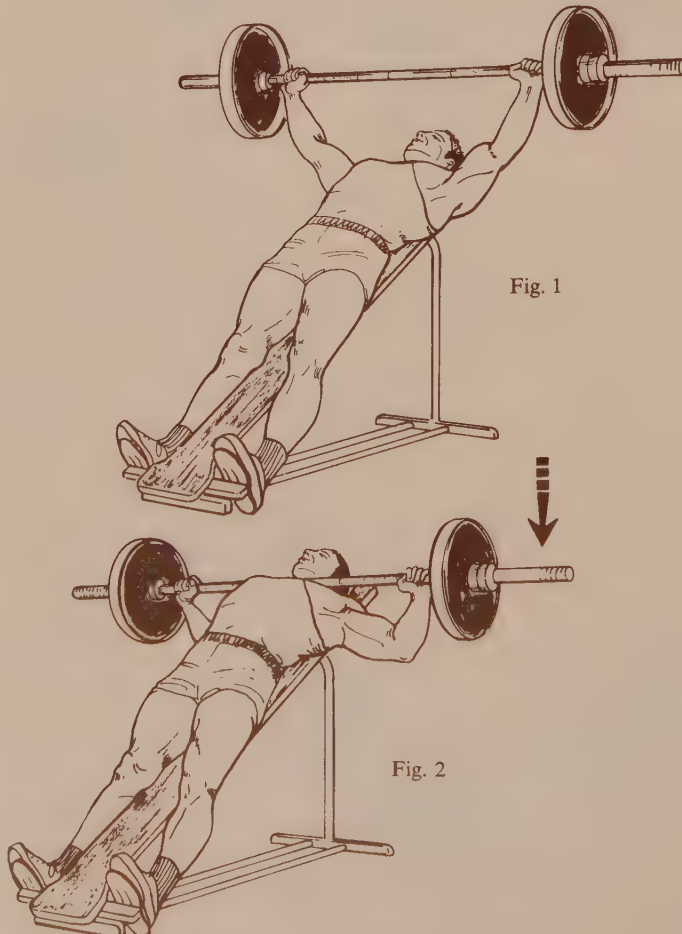
▲ Wide Grip Incline Front Barbell Raise

Upper pectorals and front deltoids

Lie on an incline bench. Using a hand grip that is about thirty-two inches apart, place the barbell on your upper thighs and lock your elbows to keep your arms straight. From this position take a deep breath and raise the barbell up and over the waist, chest and head until it goes as far back behind your head as is comfortable. Then lower the weight back to the upper thigh and exhale. You must breathe heavily, keep the chest high and arms straight.

INCLINE BARBELL BENCH PRESS TO NECK

Outer and upper pectorals

**▲ Close Grip Incline Front Barbell Raise**

Upper pectorals and front deltoids

Lie on an incline bench. Using a hand grip that is about six inches apart, place the barbell on your upper thighs and lock the elbows to keep your arms straight. From this position take a deep breath and raise the barbell up and over the waist, chest and head until it goes as far back behind your head as is comfortable. Then lower the weight back to the upper thigh and exhale. You must breathe heavily, keep the chest high and arms straight.

■ Incline Barbell Bench Press to Neck

Lie on an incline bench. Bring the barbell to arm's length, using a little wider than normal grip. Lower the barbell to the highest part of the chest just below the starting of the neck. Push the barbell back to arm's length to complete the repetition. Inhale as the bar is lowered to the neck and exhale as the bar is pressed back to arm's length. Keep the elbows slightly back and almost in line with the ears. Do not relax and drop the weight to the neck, but lower it, making a definite pause at the base of the neck before pressing it back to starting position. Keep the head on the bench and do not arch the back.

■ BARBELL BENCH PRESS TO NECK

Outer and upper pectorals

Lie in a supine position on a flat bench with

your legs positioned at the sides of the bench and your feet flat on the floor. Using a hand grip that is a little wider than a normal bench press grip, bring the barbell to arm's length about the chest but in line with the shoulders. From this position lower the barbell to the highest part of the chest, directly under the Adam's apple. Note from the illustrations that the elbows are back and in line with the ears while the forearms are vertical. Inhale as you lower the barbell to the neck and exhale as the barbell is pressed back to starting position. Do not relax and drop the weight on the neck but lower it in a controlled manner, making a definite pause at the neck before raising it back to starting position. Keep your head on the bench and do not arch your back too sharply as to raise your hips off the bench.

■ Decline Barbell Bench Press to Neck

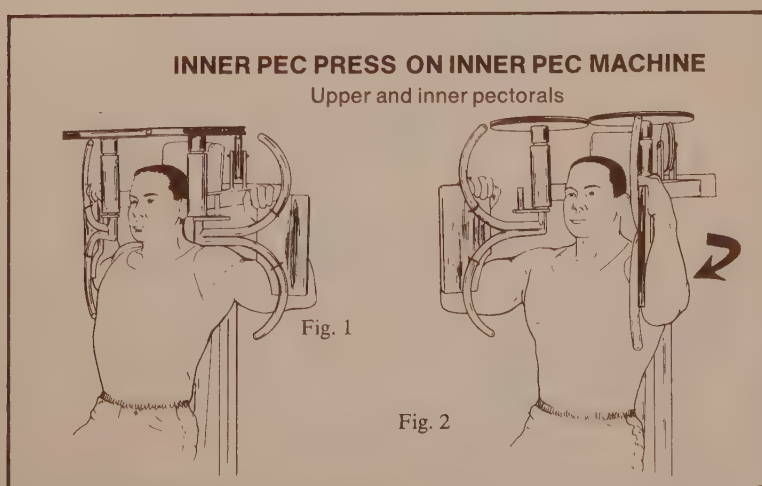
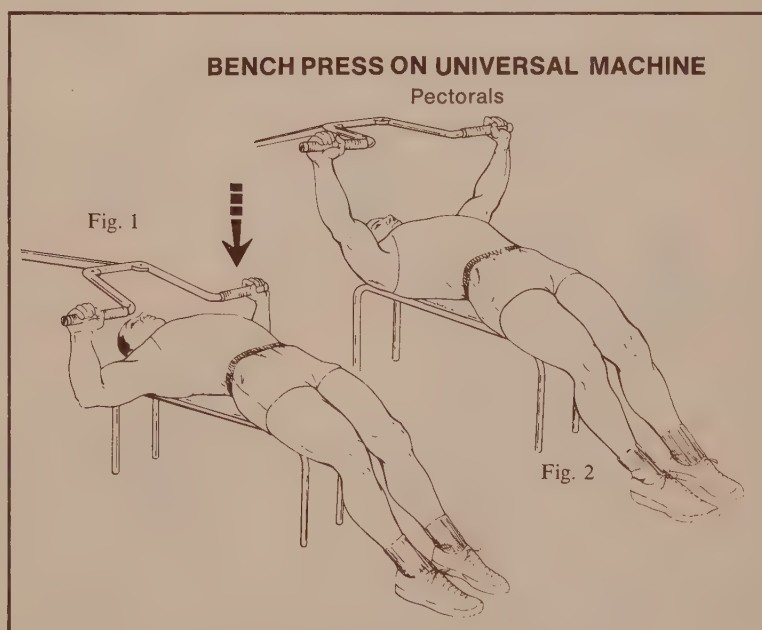
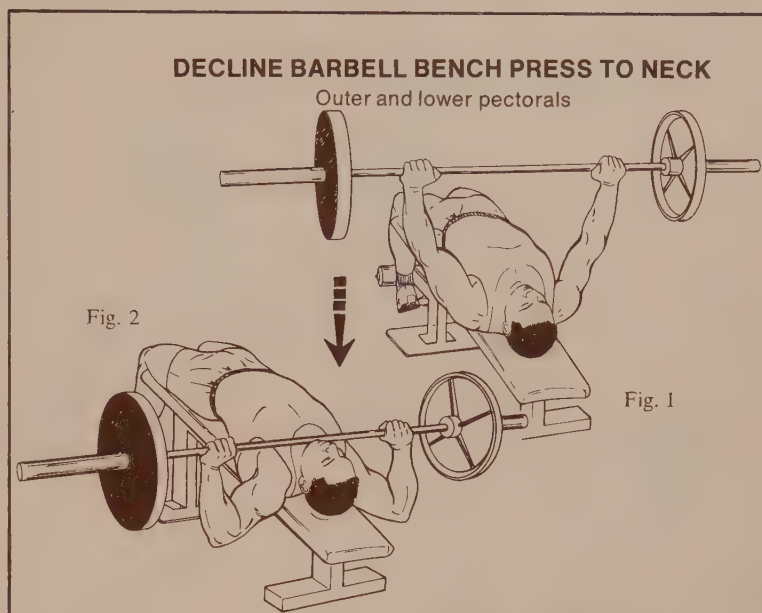
Lie on a decline bench. Bring the barbell to arm's length using a little wider than normal grip. Lower the barbell to the highest part of the chest just below the starting of the neck. Push the weight back to arm's length to starting position to complete the repetition. Inhale as the barbell is lowered to the neck and exhale as the barbell is pressed back to starting position. Keep your elbows slightly back and almost in line with your ears. Do not relax and drop the weight to the neck but lower it, making a definite pause before pressing it back to starting position. Keep your head on the bench and hold your chest high.

▲ Bench Press on Universal Machine

This type of bench press is similar to the regular bench press only you use the Universal machine rather than a free bar. Because of the construction of the machine, it is impossible to breathe as you would if doing a bench press on a regular bar. You must inhale as you start the exercise from the chest and exhale as you lower the weight back to the chest. With a regular barbell it would be just the opposite. A nice advantage of the Universal machine is that you can hardly perform an exercise improperly because of the construction of the machine. Still, keep the hips flat on the bench, do not raise the head while doing the exercise and keep the rib cage high while performing each repetition in a slow definite motion.

▲ Inner Pec Press on Inner Pec Machine

The way this exercise is performed will depend a great deal on how the inner pec



WIDE GRIP BARBELL BENCH PRESS

Outer pectorals

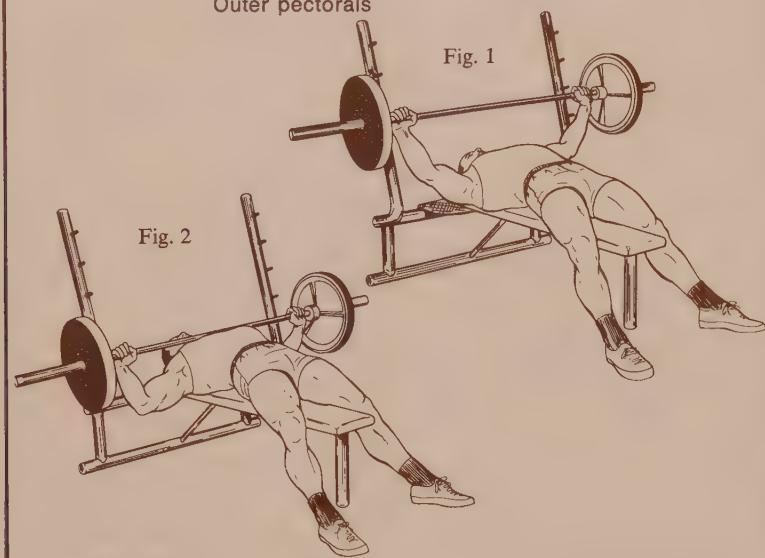


Fig. 1

Fig. 2

WIDE GRIP INCLINE BARBELL BENCH PRESS

Outer and upper pectorals

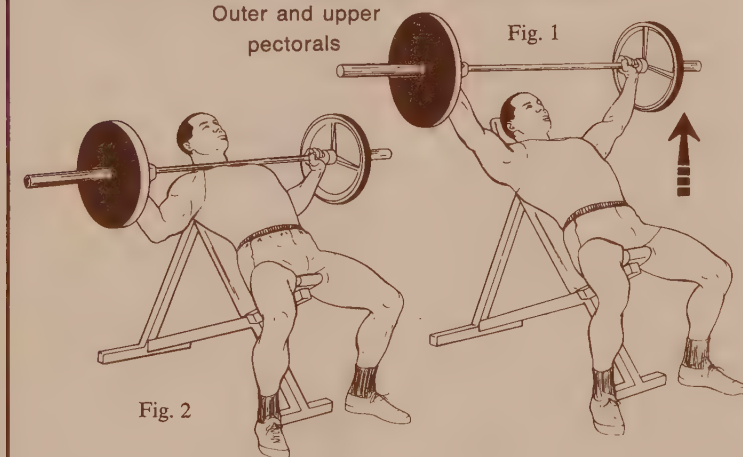


Fig. 1

Fig. 2

WIDE GRIP DECLINE BARBELL BENCH PRESS

Outer and lower pectorals

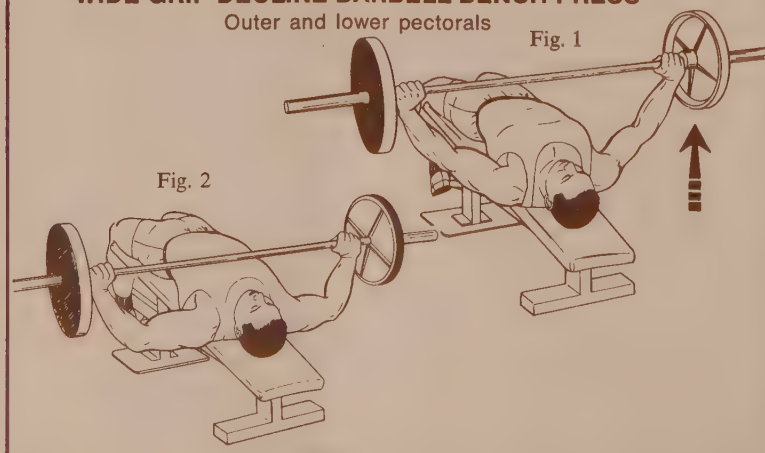


Fig. 1

Fig. 2

machine you use is constructed. Some are more elaborate than others and have adjustable seats and arms. The main thing is to remember while performing this exercise is to keep the upper arms fairly high and about in line with your shoulders. You should keep the forearms in a vertical position so as not to bring any more of the triceps and deltoids into play than necessary. Concentrate on squeezing your forearms together by concentrating on the pectorals doing the work. Inhale as you are squeezing and exhale as you return your arms back to starting position.

■ Wide Grip Barbell Bench Press

Lie in a supine position on a flat bench with your legs positioned at the sides of the bench and your feet flat on the floor. Using a collar to collar grip, bring the barbell to arm's length about the chest but in line with the shoulders. Lower the barbell to a position on the chest that is about an inch below the nipples of the pectorals. Note from the illustrations that the elbows are back and the forearms are nearly vertical as the weight is lowered. Inhale as the barbell is lowered to the chest and exhale as you push the barbell back to arm's length. Do not relax and drop the weight on the chest but lower it in a controlled manner, making a definite stop at the chest before pressing it back to starting position. Keep your head on the bench and do not arch the back too sharply as this causes your hips to raise off the bench.

■ Wide Grip Incline Barbell Bench Press

Lie back on an incline bench. Using a collar to collar grip, lower the barbell from arm's length above the shoulders to a position on the chest that is about three inches above the nipples of the pectorals. Note from the illustrations that the elbows are back and the forearms are nearly vertical as the weight is lowered. Inhale as you lower the barbell and exhale as you press it back to starting position. Do not relax as you press it back to starting position. Do not drop the barbell on the upper chest but lower it in a controlled manner, making a definite pause at the upper chest before pressing it back to arm's length. Keep your head on the bench and hold the chest high but do not raise the hips off the bench.

■ Wide Grip Decline Barbell Bench Press

Lie back on a decline bench. Using a collar to collar grip, lower the barbell from arm's length above the middle of the pectoral muscles to a position on the lower chest

that is about three inches below the nipples of the pectorals. Note that the elbows are back and the forearms are nearly vertical as the weight is lowered. Inhale as you lower the weight to the chest and exhale as the barbell is pressed back to starting position. Do not relax and drop the weight on the chest but lower it in a controlled manner, making a definite pause at the chest before pressing it back to arm's length. Keep the head on the bench and the chest held high.

▲ Wide Grip Decline Straight Arm Barbell Pullover

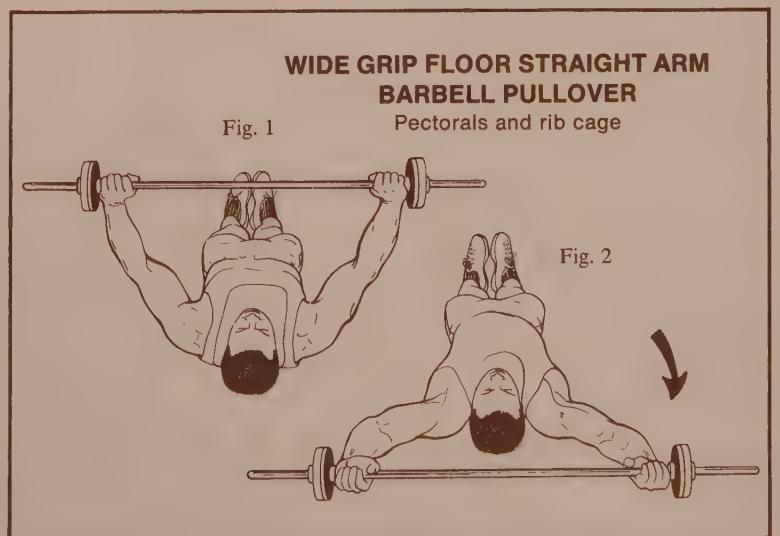
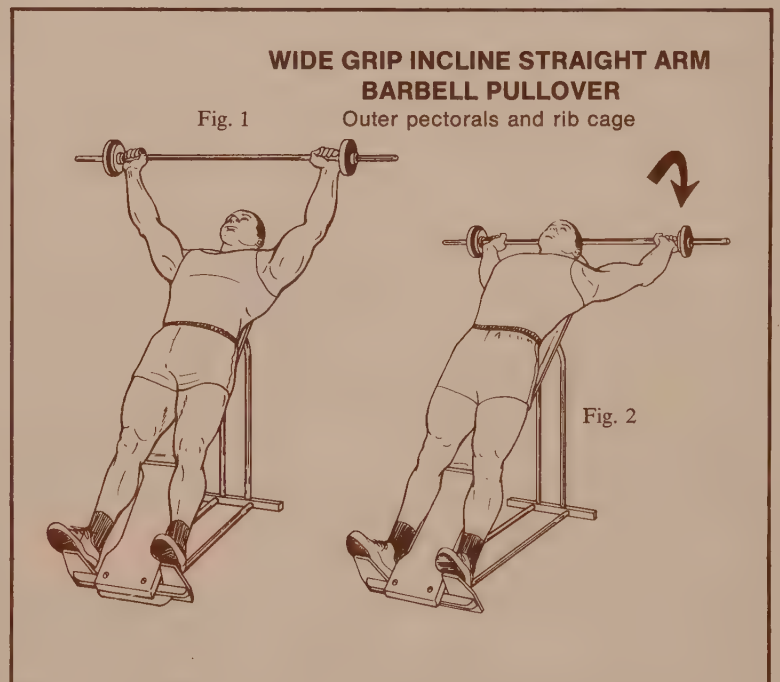
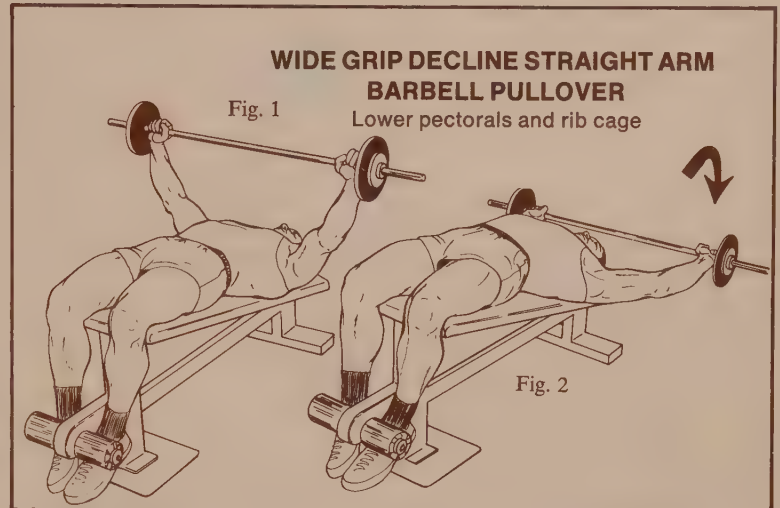
Lie on a decline bench with your head as close to the end of the decline bench as possible. With a barbell held at arm's length above the chest and using a collar to collar hand grip, take a deep breath and lower the barbell in a semicircle past the chest and head until it is lowered to a position behind your head that brings no discomfort to the shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting point. Be sure to keep the chest high and breathe heavily.

▲ Wide Grip Incline Straight Arm Barbell Pullover

Lie on an incline bench with your head on the bench. With a barbell held at arm's length above your chest and using a collar to collar hand grip, take a deep breath and lower the barbell in a semicircle past your chest and head to a position behind your head that brings no discomfort to your shoulder area. From the low position, return the barbell to starting position still keeping your elbows in a locked position. Exhale as you reach the starting position. Keep your head down, your chest high, and breathe heavily.

▲ Wide Grip Floor Straight Arm Barbell Pullover

Lie on the floor with your head down. With a barbell held at arm's length above your chest and using a collar to collar hand grip, take a deep breath and lower the barbell in a semicircle past your chest and head until it is lowered to the floor or a position behind your head that brings no discomfort to your shoulder area. From the low position, return the barbell to starting position still keeping your elbows in a locked position. Exhale as you reach the starting position. Keep your head down, your chest high, and breathe heavily.



FLOOR DUMBBELL FLY

Outer pectorals

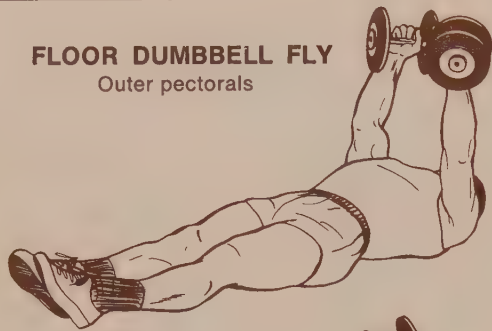


Fig. 1

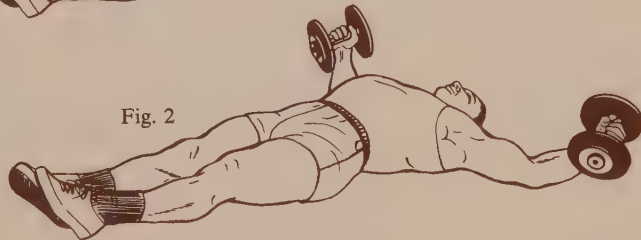


Fig. 2

FLAT DUMBBELL FLY

Outer pectorals

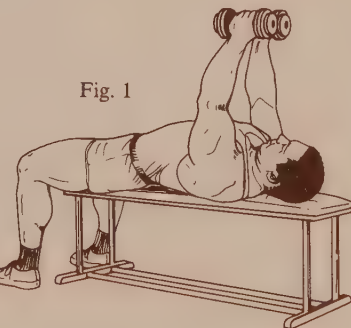
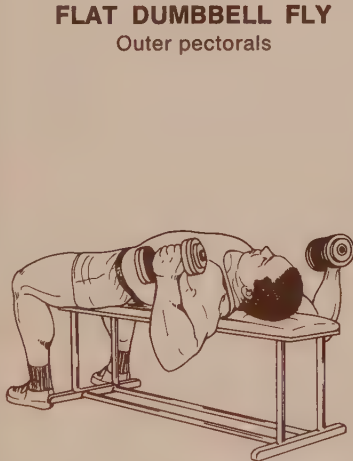


Fig. 1

Fig. 2

INCLINE DUMBBELL FLY

Upper pectorals



Fig. 2

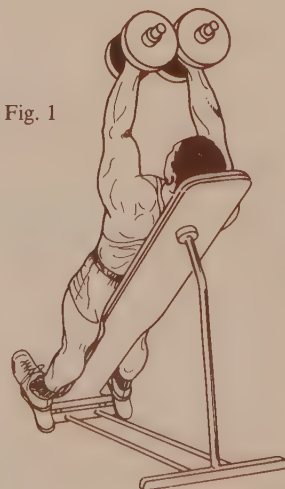


Fig. 1

▲ Floor Dumbbell Fly

Lie on the floor with two light dumbbells at arm's length above your shoulders with your palms of your hands facing each other. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest but back slightly so they are nearly in line with your ears. From this position return the weights back above your chest using the same path in which you used originally. Exhale as you reach the top position. You must breathe heavily, hold your chest high, keep your head down and concentrate on your pectorals.

▲ Flat Dumbbell Fly

Lie supine on a flat bench with two light dumbbells at arm's length above the shoulders with the palms of the hands facing each other. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest but back slightly so they are nearly in line with your ears. From this position return the weights back above the chest using the same path in which you used originally. Exhale as you reach the top position. You must breathe heavily, hold your chest high, keep your head on the bench and concentrate on the pectorals.

▲ Incline Dumbbell Fly

Lie on an incline bench with two light dumbbells at arm's length above the shoulders, palms facing each other. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest, but back slightly so they are nearly in line with your ears. From this position return the weights back above the chest using the same path in which you used originally. Exhale as you reach the top position. You must breathe heavily, hold your chest high and concentrate on the pectorals.

▲ Decline Dumbbell Fly

Lie on a decline bench with two light dumbbells at arm's length above the shoulders with the palms of the hands facing each other. Keeping the arms as straight as possible, lower the dumbbells out to each side

of the chest but slightly back so they are nearly in line with your ears. From this position return the weights back above the chest using the same path in which you used originally. Exhale as you reach the top position. You must breathe heavily, hold your chest high, keep your head on the bench and concentrate on the pectorals.

▲ Flat Around the World

Lie on a flat bench with a dumbbell held in each hand having the palms of your hands facing each other while the dumbbells are held on each thigh just below the groin area. Keep the elbows slightly bent but have them locked out while bringing the weights out and around in a circular motion to the sides of the body past the waist, chest, and head until the dumbbells come together behind your head at arm's length. As you are bringing the dumbbells to this position behind your head you should turn your wrists so the palms will be facing upward at the half way position of the exercise. Return the dumbbells in the same path in which you brought them behind your head. Inhale as you commence the exercise and exhale as you bring the weights back to the top of the thighs.

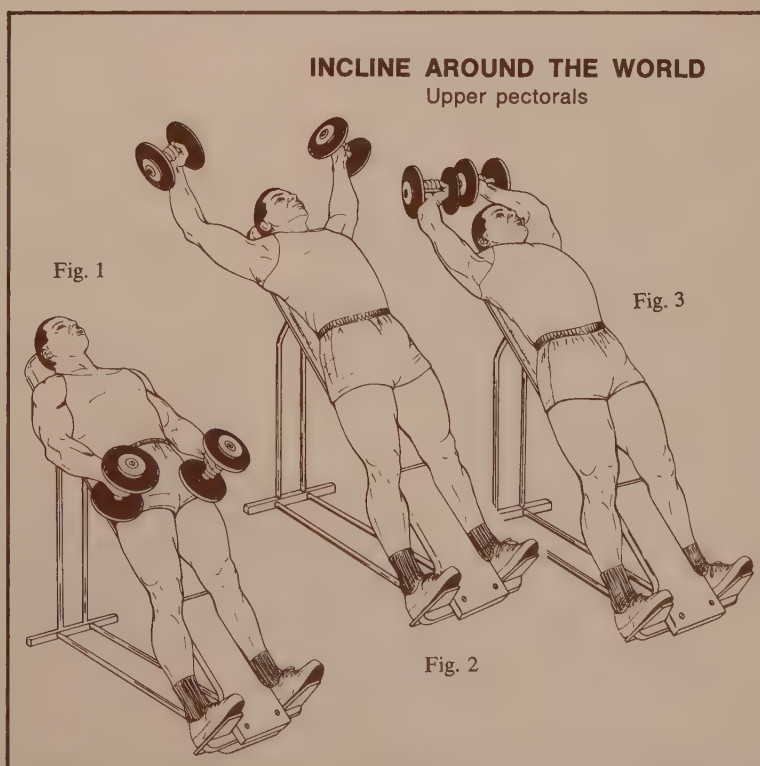
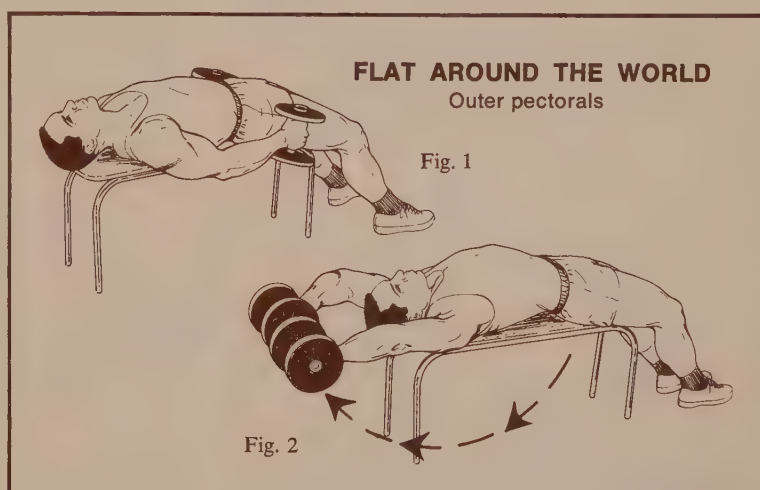
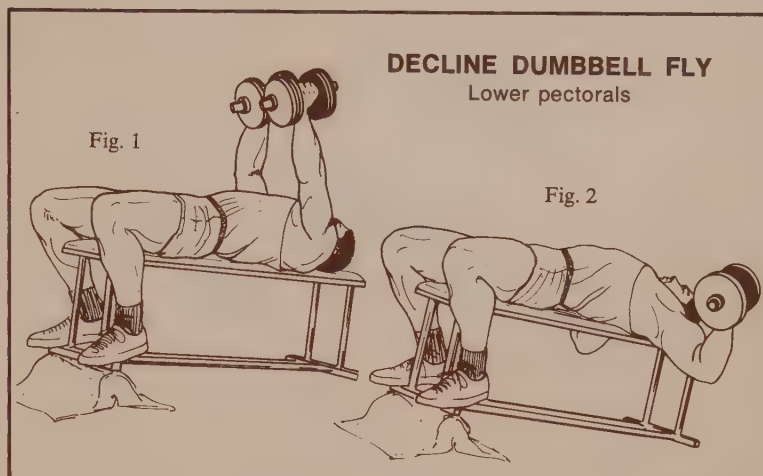
▲ Floor Around the World

Outer pectorals

Lie on the floor with a dumbbell held in each hand having the palms of your hands facing each other with the dumbbells held on each thigh just below the groin area. Keep the elbows slightly bent but have them locked out while bringing the weights out and around in a circular motion to the sides of the body past the waist, chest and head until the dumbbells come together behind your head at arm's length. As you are bringing the dumbbells to this position behind your head you should turn your wrists so the palms will be facing upward at the half way position of the exercise. Return the dumbbells in the same path in which you brought them behind your head. Inhale as you commence the exercise and exhale as you bring the weights back to the top of the thighs.

▲ Incline Around the World

Lie on an incline bench with a dumbbell held in each hand, having the palms of your hands facing each other while the dumbbells are held on each thigh just below the groin area. Keep the elbows slightly bent



DECLINE AROUND THE WORLD

Lower pectorals

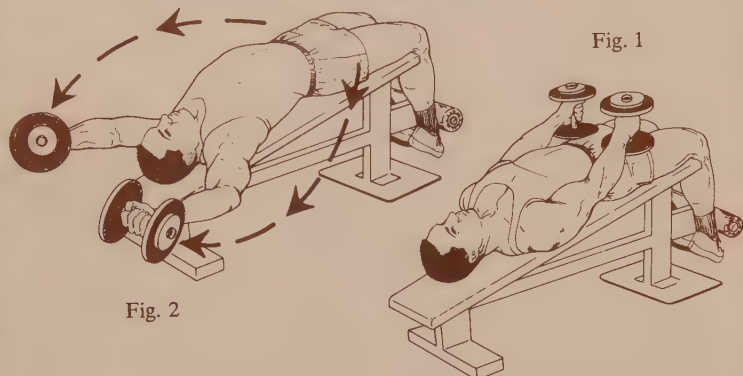


Fig. 1

Fig. 2

but have them locked out while bringing the weights out and around in a circular motion to the sides of the body past the waist, chest and head until the dumbbells come together behind your head at arm's length. As you are raising the dumbbells to this position behind your head, you should turn your wrists so the palms will be facing upward at the top position of the exercise. Return the dumbbells in the same path in which you raised them behind your head. Inhale as you commence the exercise and exhale as you lower the weights back to the top of the thighs.

▲ Decline Around the World

Lie on a decline bench with a dumbbell held in each hand, having the palms of your hands facing each other while the dumbbells are held on each thigh just below the groin area. Keep the elbows slightly bent but have them locked out while bringing the weights out and around in a circular motion to the sides of the body past the waist, chest and head until the dumbbells come together behind your head at arm's length. As you are bringing the dumbbells to the position behind your head you should turn your wrists so the palms will be facing upward at the half way position of the exercise. Return the dumbbells in the same path in which you brought them behind your head. Inhale as you commence the exercise and exhale as you bring the weights back to the top of the thighs.

FLAT DUMBBELL PRONE

Pectorals

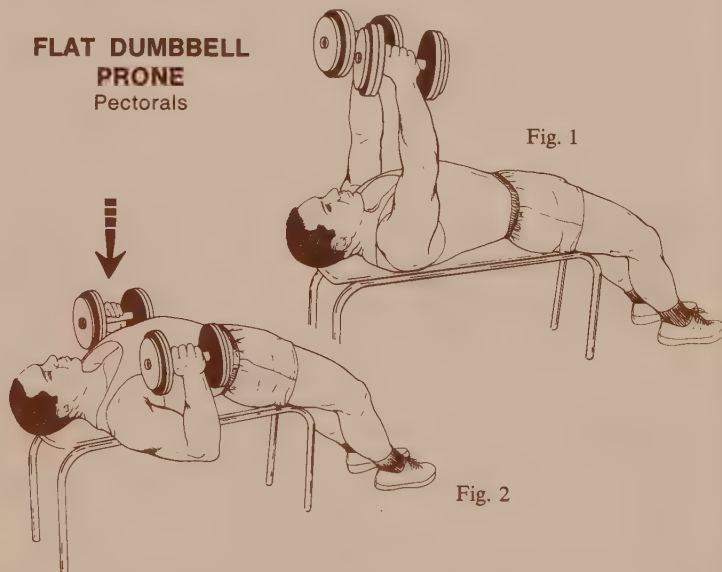


Fig. 1

Fig. 2

● Flat Dumbbell Prone

Lie supine on a flat bench with two dumbbells at arm's length above the chest. With the palms facing each other, lower the dumbbells straight down with the arms held in close to your sides. Bring the dumbbells down until they reach the sides of your chest before pushing them back to starting position. You must keep the arms in close at all times. Inhale as you lower the dumbbells and exhale as you push them back to starting position. Keep the rib cage as high as possible.

INCLINE DUMBBELL PRONE

Upper pectorals

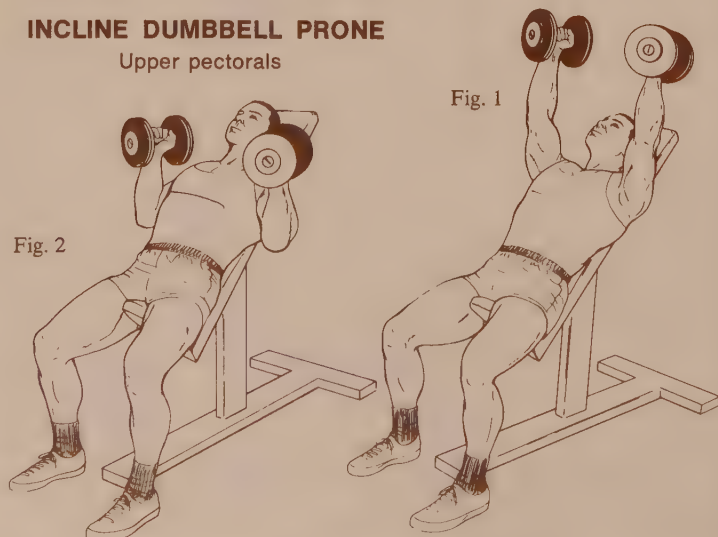


Fig. 1

Fig. 2

● Incline Dumbbell Prone

Lie on an incline bench with two dumbbells at arm's length above the chest. With the palms facing each other, lower the dumbbells straight down with the arms held in close to your sides. Bring the dumbbells down until they reach the sides of your

chest before pushing them back to starting position. You must keep the arms in close at all times. Inhale as you lower the dumbbells and exhale as you push the dumbbells back to starting position. Keep the rib cage as high as possible.

● Decline Dumbbell Prone

Lower pectorals

Lie on a decline bench with two dumbbells at arm's length above your chest. With the palms facing each other, lower the dumbbells straight down with the arms held in close to your sides. Bring the dumbbells down until they reach the sides of your chest before pushing them back to starting position. You must keep the arms in close at all times. Inhale as you lower the dumbbells and exhale as you push them back to starting position. Keep the rib cage as high as possible.

■ Bent Arm Dumbbell Pullover - Press - Lateral

Lie supine on a flat bench with your shoulders at the end of the bench and your head pointing downwards towards the floor. With a dumbbell in each hand, place the weights to the sides of your chest about even with the nipples of your pectorals. Keeping your elbows in during the start of the exercise, take a deep breath and lower the weights over and past your face so they just pass by your ears on their way downwards towards the floor. Continue to lower the dumbbells until they reach the floor, or get as low as possible without bringing undue discomfort to the shoulder area. Then pull the dumbbells back to the position at the side of your chest using the same path in which you lowered them. From here, press the dumbbells to arm's length above your chest, keeping the palms of your hands facing each other. At this point, lower the dumbbells in a semicircular motion to a down position so the dumbbells are approximately even with your chest put out about ten inches from each side of the chest. Be sure that the elbows are drawn downwards and back so they are in line with your ears. The forearms are slightly out of a vertical position. Press the dumbbells back to starting position using the same arc as in letting them down. From the top position, lower the dumbbells back to the sides of the chest with your elbows in close to your sides and exhale. You then start the second repetition with the pullover, then the press, then the lateral.

BENT ARM DUMBBELL PULLOVER-PRESS-LATERAL

Pectorals

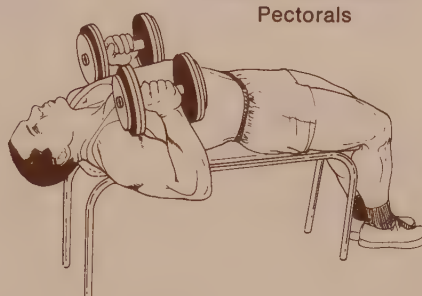


Fig. 1

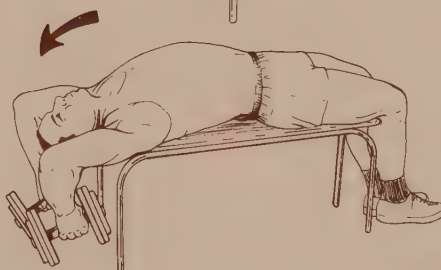


Fig. 2

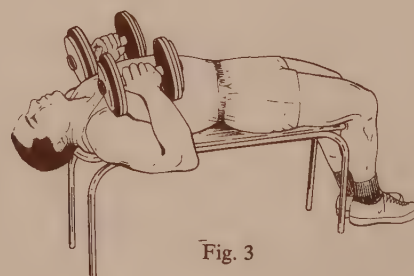


Fig. 3

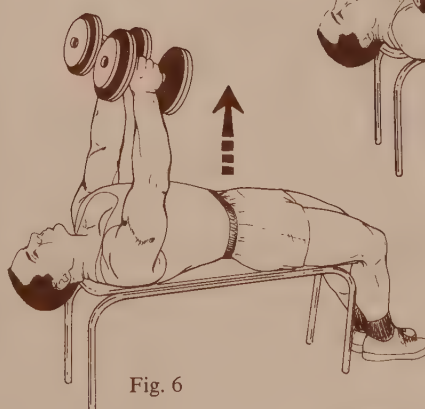


Fig. 6

Fig. 4

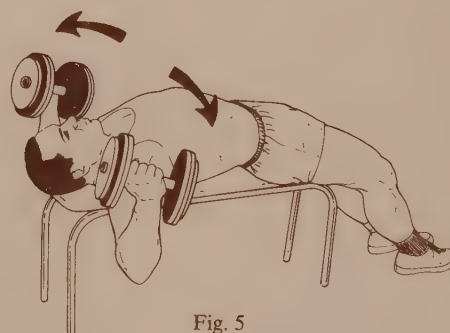


Fig. 5

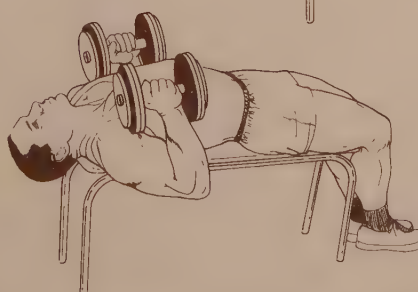


Fig. 7

INCLINE LATERAL

Upper pectorals

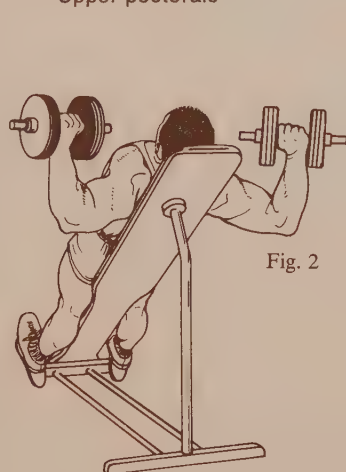
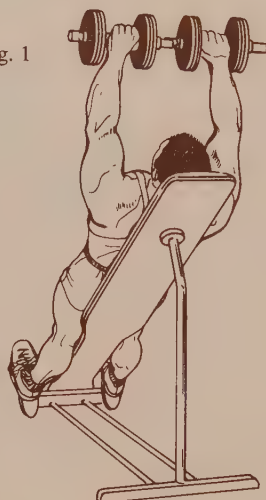


Fig. 2

Fig. 1

**BENT ARM LATERAL**

Outer pectorals

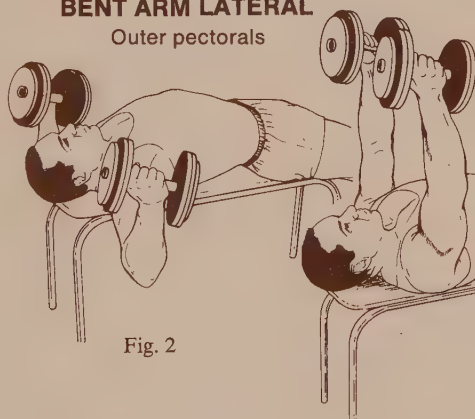
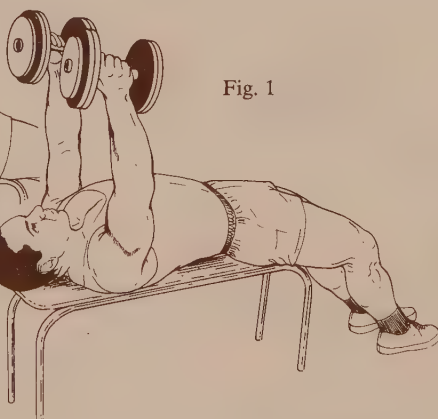
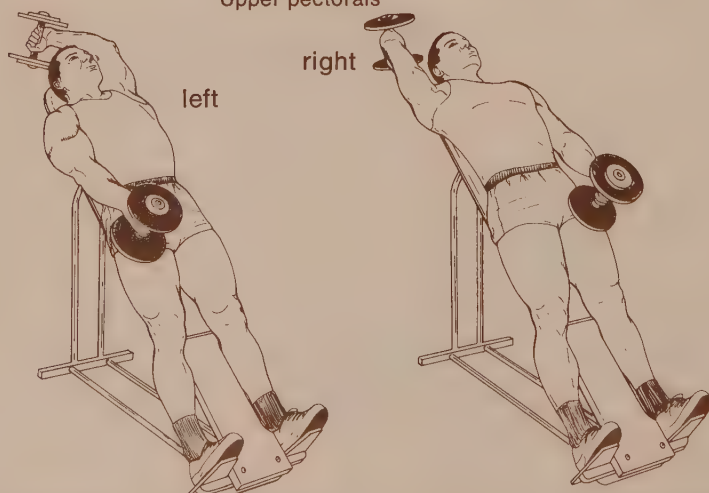


Fig. 2

Fig. 1

**INCLINE ALTERNATED FRONT DUMBBELL RAISE**

Upper pectorals

**▲ Incline Lateral**

Use a hand position on the dumbbells similar to that of holding a barbell. Start with the dumbbells together at arm's length above the shoulders. Slowly lower them to the down position so the dumbbells are approximately even with the chest but about ten inches from each side of the chest. Notice that the elbows are drawn downwards and back so they are in line with the ears. The forearms are slightly out of a vertical position. The press back to starting position is done by using the same arc as in letting the dumbbells down. Inhale at the beginning of the exercise and exhale at the finish.

▲ Bent Arm Lateral

Lie on a flat bench with the dumbbells together at arm's length above the shoulders. The palms of the hands should be facing each other. Slowly lower the dumbbells to the down position so the dumbbells are approximately even with the chest but out about ten inches from each side of the chest. Notice that the elbows are drawn downwards and back so they are in line with the ears. The forearms are slightly out of a vertical position. The press back to starting position is done by using the same arc as in letting the dumbbells down. Inhale at the beginning of the exercise and exhale at the finish.

▲ Decline Lateral

Lower pectorals

Lie on a decline bench with two dumbbells together at arm's length above the shoulders. The palms of the hands should be facing each other. Slowly lower the dumbbells to the down position so the dumbbells are approximately even with the chest but out about ten inches from each side of the chest. Notice that the elbows are drawn downwards and back so they are in line with the ears. The forearms are slightly out of a vertical position. The press back to starting position is done by using the same arc as in letting the dumbbells down. Inhale at the beginning of the exercise and exhale at the finish.

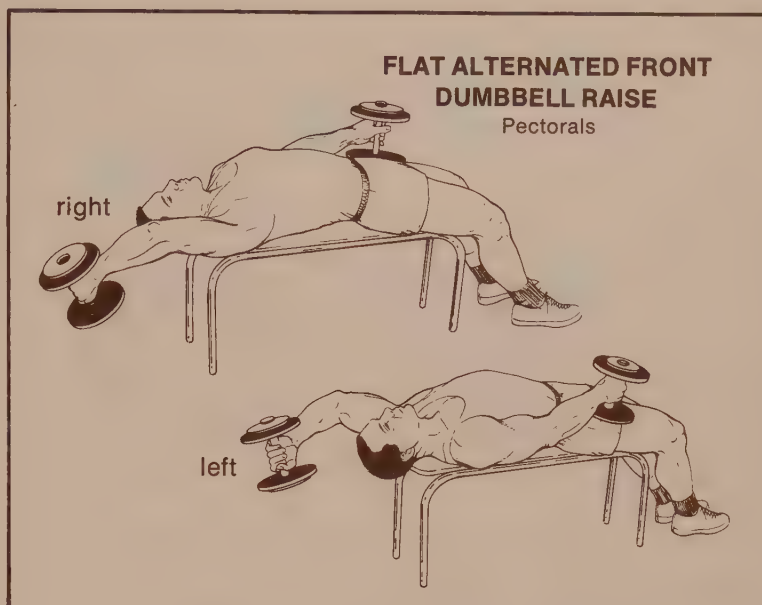
▲ Incline Alternated Front Dumbbell Raise

Lie on an incline bench holding two dumbbells in your hands with the palms of the hands facing each other. Let the dumbbells

rest on the thighs with the arms straight. Raise the right arm up and directly over behind your head. Go back as far as possible with the dumbbell so long as no discomfort is felt in the shoulder area. As you commence to let the right arm down to starting position, bring the left arm up and over behind your head. You will inhale as the right arm goes up and exhale as the left arm starts to raise.

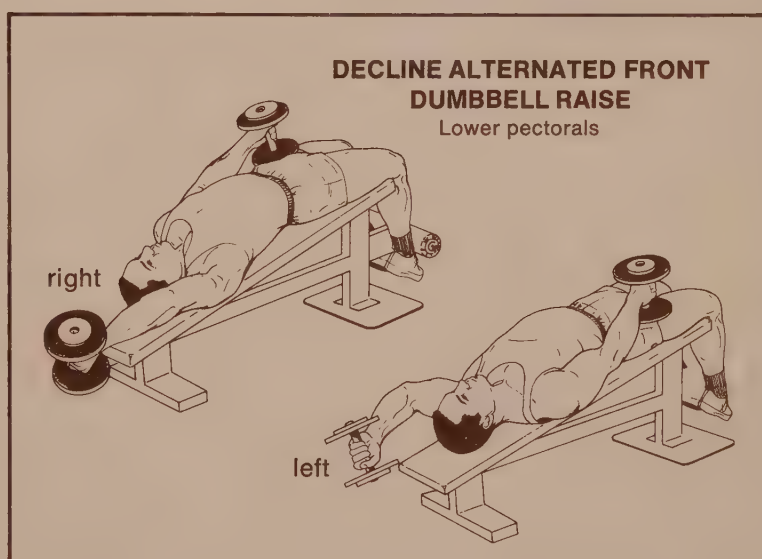
▲ Flat Alternated Front Dumbbell Raise

Lie on a flat bench holding two dumbbells in your hands with the palms of the hands facing each other and the dumbbells resting on your thighs. With your arms straight, raise the right arm up and directly over behind your head. Go back as far as possible with the dumbbell so long as no discomfort is felt in the shoulder area. As you commence to let the right arm down to starting position, bring the left arm up and over behind your head. You will inhale as the right arm goes up and exhale as the left arm starts to rise.



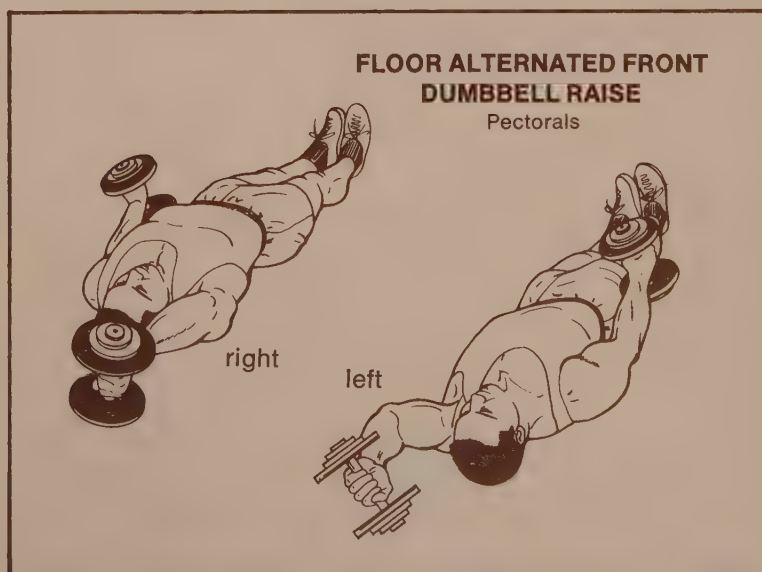
▲ Decline Alternated Front Dumbbell Raise

Lie on a decline bench holding two dumbbells in your hands with the palms of your hands facing each other and the dumbbells resting on your thighs. With your arms straight, raise the right arm up and directly over behind your head. Go back as far as possible with the dumbbells so long as no discomfort is felt in the shoulder area. As you commence to bring the right arm back to starting position, bring the left arm up and over behind your head. You will inhale as the right arm goes up and exhale as the left arm starts to raise.



▲ Floor Alternated Front Dumbbell Raise

Lie supine on the floor holding two dumbbells in your hands with the palms of your hands facing each other and the dumbbells resting on your thighs. With your arm straight, raise the right arm up and directly over behind your head. Go back as far as possible with the dumbbells so long as no discomfort is felt in the shoulder area. As you commence to bring the right arm back to starting position, bring the left arm up and over behind your head. You will inhale as the right arm goes up and exhale as the left arm starts to raise.



CLOSE GRIP FLOOR STRAIGHT ARM BARBELL PULLOVER

Pectorals and rib cage

Fig. 1

Fig. 2

CLOSE GRIP INCLINE STRAIGHT ARM BARBELL PULLOVER

Upper pectorals and rib cage

Fig. 1

Fig. 2

CLOSE GRIP DECLINE STRAIGHT ARM BARBELL PULLOVER

Lower pectorals and rib cage

Fig. 1

Fig. 2

▲ Close Grip Floor Straight Arm Barbell Pullover

Lie on the floor with your head down. With a barbell held at arm's length above your chest and a hand grip about ten inches apart, inhale and lower the barbell in a semicircular motion over the chest and head until it is lowered to the floor or to a position behind your head that brings no discomfort to your shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position and exhale.

▲ Close Grip Straight Arm Barbell Pullover

Pectorals and rib cage

Lie supine on a flat bench with your head at the end of the bench. With a barbell held at arm's length above the chest and the hands spaced about ten inches apart, take a deep breath and lower the barbell in a semicircle motion past the chest and head until it is lowered to a position behind your head that brings no discomfort to the shoulder area. From this position return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head down, your chest high, breathe heavily and do not raise your hips off the bench.

▲ Close Grip Incline Straight Arm Barbell Pullovers

Lie on an incline bench with your head on the bench. With a barbell held at arm's length above your chest and a hand grip about ten inches apart, inhale and lower the barbell in a semicircular motion over your chest and head to a position behind your head that brings no discomfort to your shoulder area. From this low position, return the barbell to starting position still keeping your elbows in a locked position and exhale.

▲ Close Grip Decline Straight Arm Barbell Pullover

Lie on a decline bench with your head as close to the end of the decline bench as possible. With a barbell held at arm's length above the chest and a hand grip about ten inches apart, take a deep breath and lower the barbell in a semicircle past the chest and head until it is lowered to a position behind your head that brings no discomfort to the shoulder area. From this

low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting point. Be sure to keep the chest high and breathe heavily.

▲ Medium Grip Straight Arm Barbell Pullover

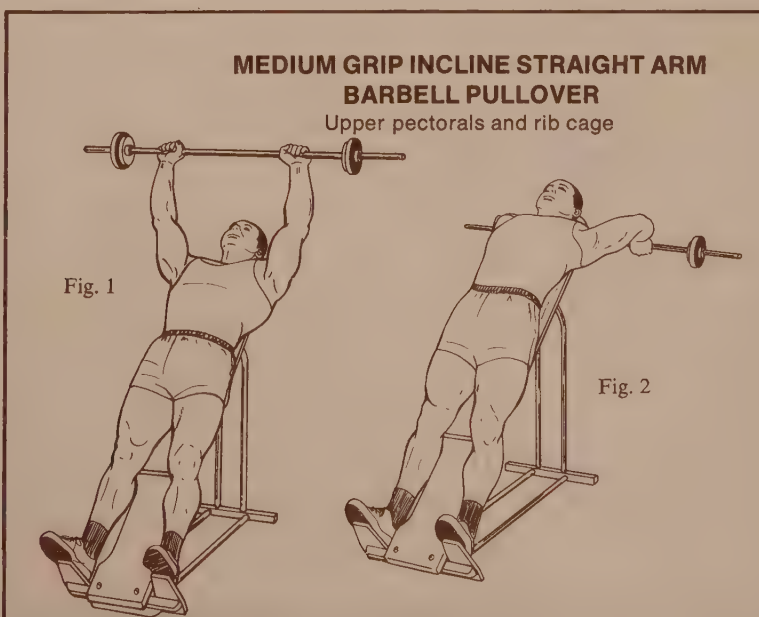
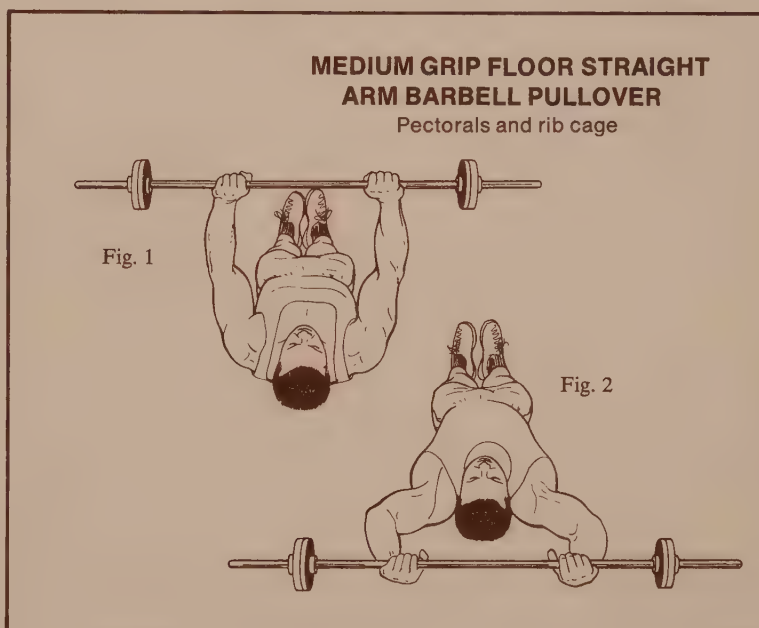
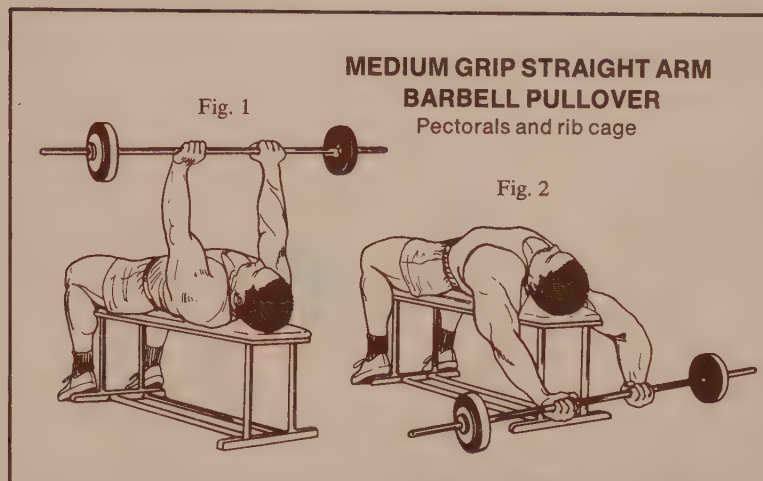
Lie supine on a flat bench with your head at the end of the bench. With a barbell held at arm's length above the chest and a hand spacing about twenty-four inches apart, take a deep breath and lower the barbell in a semicircle past the chest and head until it is lowered to a position behind your head that brings no discomfort to the shoulder area. It is possible you may go nearly to the floor if the bench is not too high. From the low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head down, your chest high, breathe heavily and do not raise your hips off the bench.

▲ Medium Grip Floor Straight Arm Barbell Pullover

Lie on the floor with your head down. With a barbell held at arm's length above your chest and a hand spacing about twenty-four inches apart, take a deep breath and lower the barbell in a semicircle past your chest and head until it is lowered to the floor or a position behind your head that brings no discomfort to your shoulder area. From the low position, return the barbell to starting position still keeping your elbows in a locked position. Exhale as you reach the starting position. Keep your head down, your chest high, and breathe heavily.

▲ Medium Grip Incline Straight Arm Barbell Pullover

Lie on an incline bench with your head on the bench. With a barbell held at arm's length above your chest and a hand spacing about twenty-four inches apart, take a deep breath and lower the barbell in a semicircle past your chest and head to a position behind your head that brings no discomfort to your shoulder area. From the low position, return the barbell to starting position still keeping your elbows in a locked position. Exhale as you reach the starting position. Keep your head down and your chest high, breathe heavily and do not raise your hips off the bench.



INCLINE CHEST CROSS OVER

Upper and inner pectorals

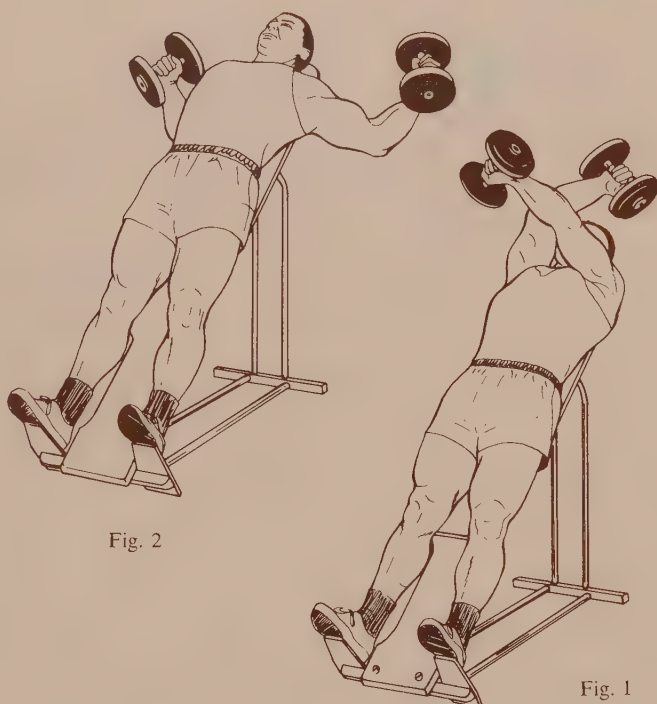


Fig. 2

Fig. 1

DECLINE CHEST CROSS OVER

Lower and inner pectorals

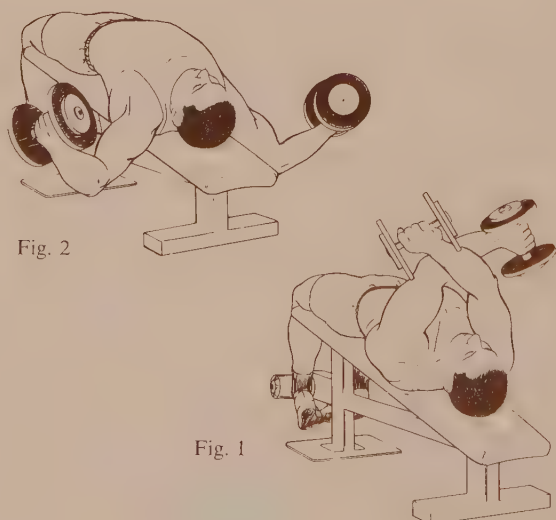


Fig. 2

Fig. 1

▲ Incline Chest Cross Over

Lie on an incline bench with two light dumbbells at arm's length above the shoulders. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest. As you bring the dumbbells back to their position over the chest, turn the dumbbells so the palms of the hands are facing away from your head and cross your arms over your chest trying to cramp the pectoral muscles. Bend your elbows slightly so you can force your arms across the body more and tighten the pectorals. Alternate the crossing of the arms with each repetition you perform. Inhale as you lower the dumbbells and exhale as you cross your arms.

▲ Decline Chest Cross Over

Lie on a decline bench with two light dumbbells at arm's length above the shoulders. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest. As you bring the dumbbells back to their position over the chest, turn the dumbbells so the palms of the hands are facing away from your head and cross your arms over your chest trying to cramp the pectoral muscles. Bend your elbows slightly so you can force your arms across the body more and tighten the pectorals. Alternate the crossing of the arms with each repetition you perform. Inhale as you lower the dumbbells and exhale as you cross your arms.

▲ Floor Chest Cross Over

Outer and inner pectorals

Lie on the floor with two light dumbbells at arm's length above the shoulders. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest. As you bring the dumbbells back to their position over the chest, turn the dumbbells so the palms of the hands are facing away from your head and cross your arms over your chest trying to cramp the pectoral muscles. Bend your elbows slightly so you can force your arms across the body more and tighten the pectorals. Alternate the crossing of the arms with each repetition you perform. Inhale as you lower the dumbbells and exhale as you cross your arms.

▲ Lying Chest Cross Over

Lie on a flat bench with two light dumbbells at arm's length above the shoulders. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest. As you bring the dumbbells back to starting position over the chest, turn the dumbbells so the palms of the hands are facing away from your head and cross your arms over your chest, trying to cramp the pectoral muscles. Bend your elbows slightly so you can force your arms across the body more and tighten the pectorals. Alternate the crossing of the arms with each repetition you perform. Inhale as you lower the dumbbells and exhale as you cross your arms.

■ Pec Compound

Outer pectorals

This is a two motion exercise so care should be used in following the directions and studying the illustrations. Lie on a flat bench with two dumbbells at arm's length overhead. With the palms of the hands facing in, lower the dumbbells in a half circular motion keeping the elbows back in line with the ears as the weights are lowered. Lower the dumbbells until they are approximately even with the chest but out about ten inches from each side of the chest. From this position, push the dumbbells back to starting position still keeping the elbows back in line with the ears. When you have reached to top position, one half of the exercise is completed. From here, lower the dumbbells straight down to the sides of the chest, keeping the arms in close to the sides as the weights are lowered. Bring the dumbbells back to starting position. This will constitute one full repetition.

■ Incline Compound

This is a two motion exercise so care should be used in following the directions and studying the illustration. Lie on an incline bench with two dumbbells at arm's length overhead. With the palms facing out, lower the dumbbells in a half circle motion, keeping the elbows back in line with the ears as the weights are lowered. Lower the dumbbells until they are approximately even with the chest but out about ten inches from each side of the chest. From this position press the dumbbells back to starting position still keeping the elbows

LYING CHEST CROSS OVER

Outer and inner pectorals

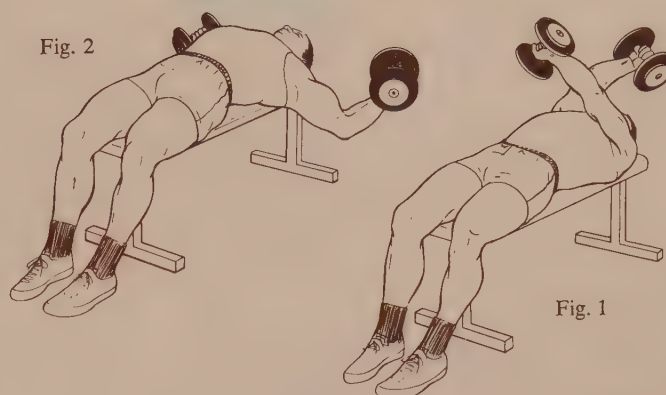


Fig. 1

INCLINE COMPOUND

Upper pectorals

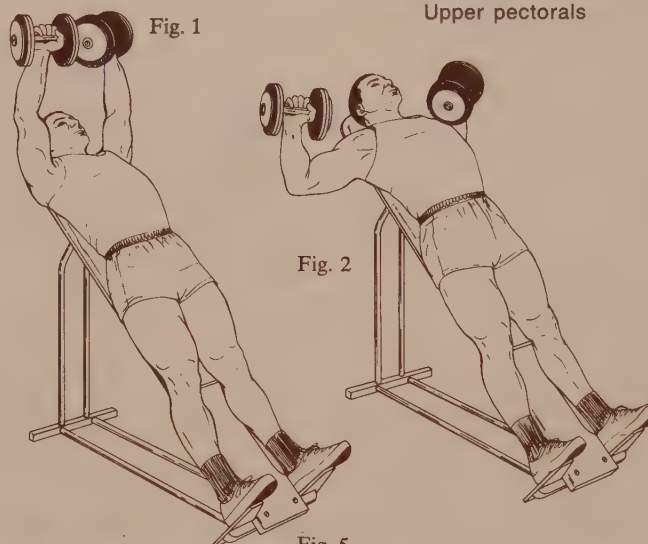


Fig. 2

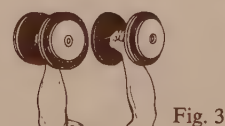


Fig. 3

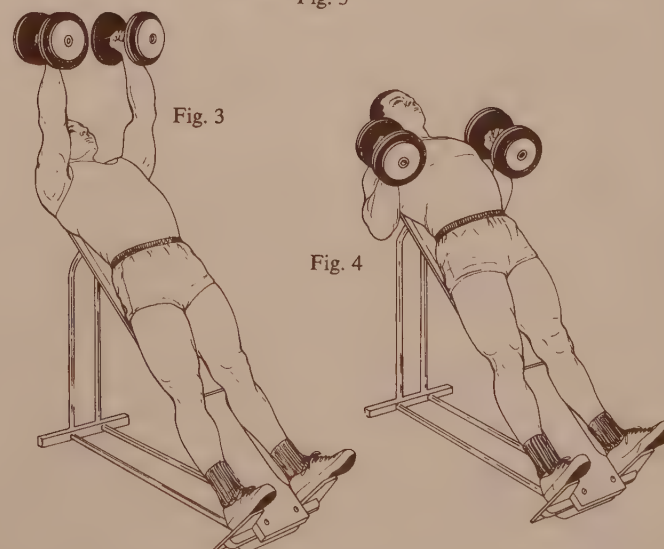


Fig. 4

DECLINE COMPOUND

Lower pectorals

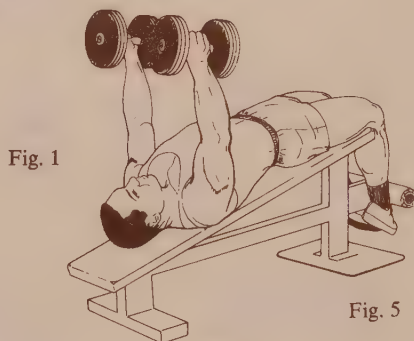


Fig. 1

Fig. 5

Fig. 2

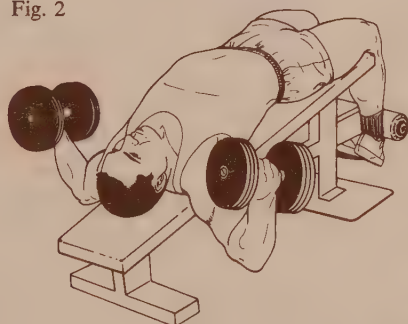
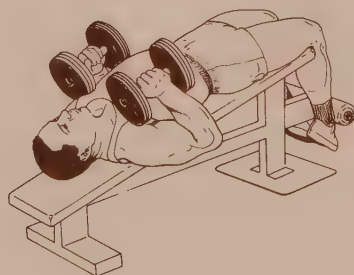


Fig. 3

Fig. 4



back in line with the ears. When you have reached the top position, change the position of the dumbbells by turning your hands so the palms are now facing each other. From this position lower the dumbbells straight down to the sides of the chest. Keeping the elbows in close to the sides as the weights are lowered. Bring the dumbbells back to starting position. This will constitute a single repetition. Change hand positions and start the exercise again. Inhale at the top and exhale at the top of each movement.

■ Decline Compound

This is a two motion exercise so care should be used in following the directions and studying the illustrations. Lie on a decline bench with two dumbbells at arm's length overhead. With the palms of the hands facing in, lower the dumbbells in a half circular motion, keeping the elbows back in line with the ears as you lower the weights. Lower the dumbbells until they are approximately even with the chest but out about ten inches from each side of the chest. From this position, push the dumbbells back to starting position still keeping the elbows back in line with the ears. When you have reached the top position one half of the exercise is completed. From here, lower the dumbbells straight down to the sides of the chest, keeping the arms in close to the sides as the weights are lowered. Bring the dumbbells back to starting position. Inhale at the top of each movement and exhale at the top of each movement.

LOW PULLEY CHEST LATERAL

Lower and inner pectorals

Fig. 1

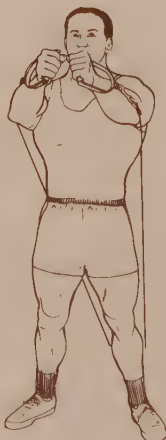
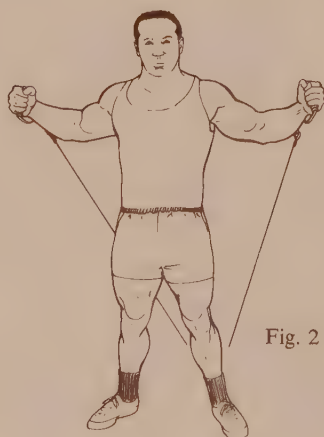


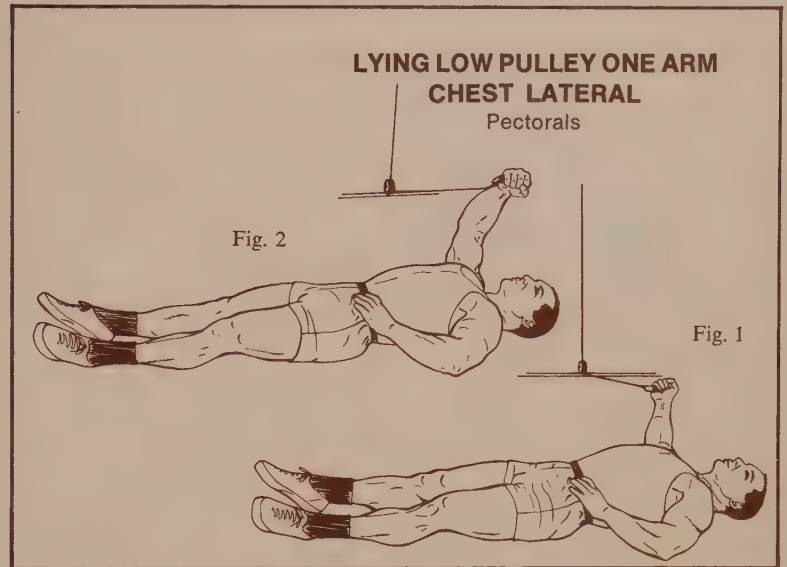
Fig. 2

**▲ Low Pulley Chest Lateral**

Face away from a wall pulley machine and grasp the handles for the low pulleys. Step far enough away from the machine to raise the weight stacks and then spread your feet about twenty-four inches apart. Lean forward slightly and bring your arms to the front of you with your elbows locked and your hands about in line with your lower pectorals. Inhale and let your arms back in a semicircular motion keeping your palms facing each other and bending your arms at the elbows as you draw your arms back until your hands are in line with your sides about twelve inches away on each side. Press the cables back to starting position in the same semicircular motion and exhale.

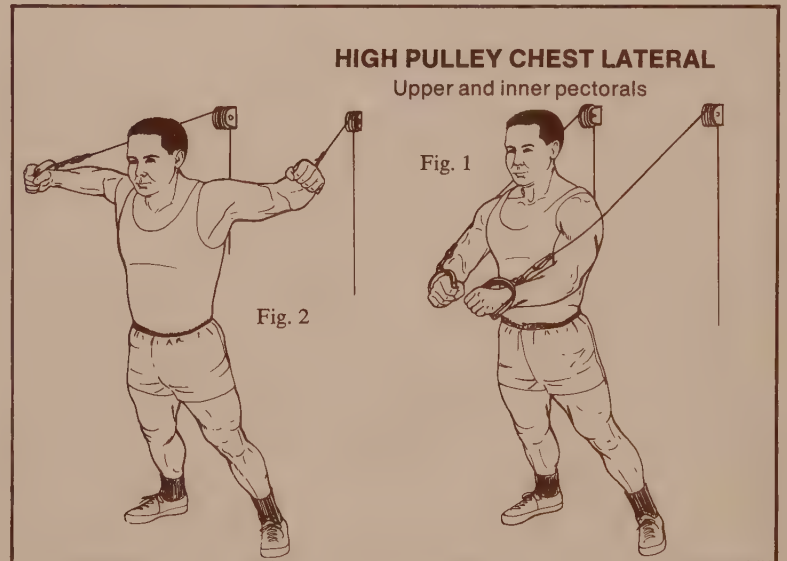
▲ Lying Low Pulley One Arm Chest Lateral

Lie supine on the floor with your body side ways to a low wall pulley. Grasp the handle of the low pulley with your hand and be sure to be far enough away from the machine so you are supporting the weight stack as you have your arm straight, elbow locked out and the palm of your hand facing up. Your arm should be in line with your shoulder as you inhale and raise the low pulley cable up in a semicircular motion until you arm is vertical over your chest. Lower the cable back to starting position and exhale. Do the prescribed number of repetitions with one arm and then change positions doing the same number of repetitions with the other arm.



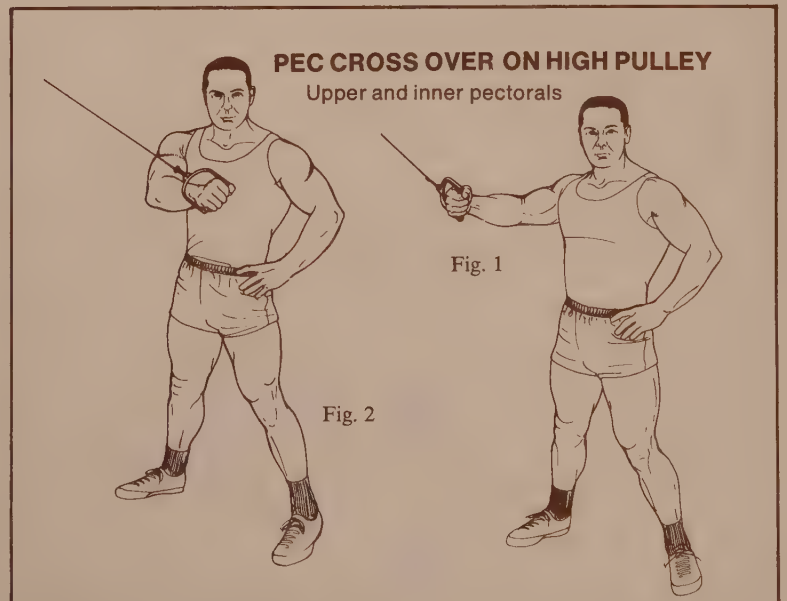
▲ High Pulley Chest Lateral

Face away from a wall pulley machine and grasp the handles for the high pulleys. Step far enough away from the machine to raise the weight stacks and then spread your feet about twenty-four inches apart. Lean forward slightly and bring your arms to the front of you with your elbows locked and your hands about in line with your lower pectorals. Inhale and let your arms back in a semicircular motion keeping your palms facing each other and your upper arms in line with your shoulders. Draw your arms back until your hands are in line with your shoulders. Press the cables back to starting position in the same semicircular motion and exhale.



▲ Pec Cross Over on High Pulley

Use wall pulley that has handles at the top. Stand so your side is facing the pulley. Grasp the top handle and step out away from the pulley so your arm is totally extended and there is tension on the cable of the wall pulley. From this position, keep your arm straight, pull your arm across your chest not letting the hand drop any lower than the height of your shoulder. The thumb of the hand should be facing up during the exercise. As you are pulling the cable across your chest, concentrate on the inner portion of the pectoral trying to get it to do the majority of the work. Inhale as you commence the pull and exhale as you let the cable back to starting position. Complete the prescribed number of repetitions with one arm and then change to the other side and complete the prescribed number of repetitions with that arm.



BENT ARM DUMBBELL PULLOVER

Pectorals and rib cage

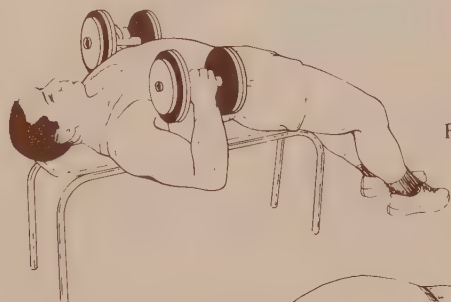


Fig. 1

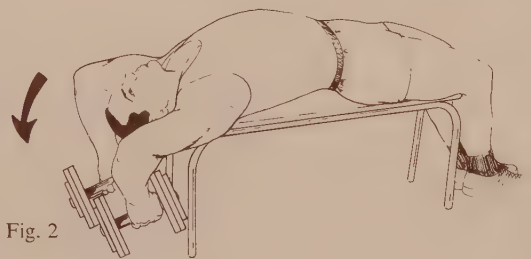


Fig. 2

STRAIGHT ARM DUMBBELL PULLOVER

Pectorals and rib cage

Fig. 1

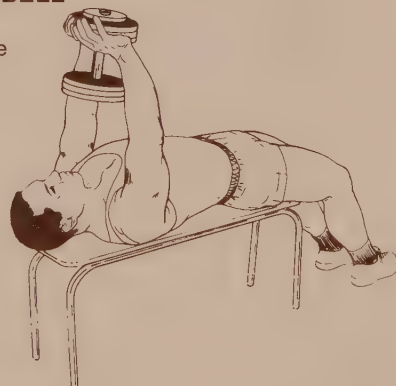


Fig. 2

Fig. 3

**▲ Bent Arm Dumbbell Pullover**

Lie on a flat bench with your shoulders at the end of the bench and your head pointing downward towards the floor. With a dumbbell in each hand, place the weights to the sides of your chest about even with the nipples of the pectorals. Keeping the elbows in during the entire exercise, take a deep breath and lower the weights over and past your face so they just pass by your ears on their way downwards towards the floor. Continue to lower the dumbbells until they reach the floor, or go as low as possible without bringing discomfort to the shoulder area. Then pull the dumbbells back to the position at the sides of the chest using the same path in which you lowered them. Exhale as you are doing so. Be sure to breathe heavily, keep the elbows in, and hold the chest high.

▲ Decline Bent Arm Dumbbell Pullover

Lower pectorals and rib cage

Lie on a decline bench with your head as close to the end of the decline bench as possible. With a dumbbell in each hand, place the weights to the sides of your chest about even with the nipples of the pectorals. Keeping the elbows in during the entire exercise, take a deep breath and lower the weights over and past your face so they just pass by your ears on their way downwards towards the floor. Continue to lower the dumbbells until they reach the floor, or go as low as possible without bringing discomfort to the shoulder area. Then pull the dumbbells back to the position at the sides of the chest using the same path in which you lowered them. Exhale as you are doing so. Be sure to breathe heavily, keep the elbows in, and hold the rib cage high.

▲ Straight Arm Dumbbell Pullover

Lie supine on a flat bench with your head as close to the end of the bench as possible. Place your hands flat against the inside plate of a dumbbell. With the dumbbell held at arm's length above the chest, take a deep breath and lower the dumbbell in a semicircular motion over the chest and head to a position behind your head that brings no discomfort to the shoulder area. From this position, return the dumbbell to starting position, still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head down, your chest held high, breathe heavily and do not raise your hips off the bench.

▲ Floor Straight Arm Dumbbell Pullover

Lie on the floor. With a dumbbell at arm's length above the chest, take a deep breath and lower the dumbbell in a semicircular motion over the chest and head to the floor, or to a position behind your head that brings no discomfort to the shoulder area. From this position, return the dumbbell to starting position, still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head down, your chest held high, breathe heavily and do not raise your hips off the floor.

▲ Decline Straight Arm Dumbbell Pullover

Lie on a decline bench with your head as close to the end of the bench as possible. With a dumbbell at arm's length above the chest, take a deep breath and lower the dumbbell in a semicircular motion over the chest and head to the floor, or to a position behind your head that brings no discomfort to the shoulder area. From this position, return the dumbbell to starting position, still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head down, your chest held high, and breathe heavily.

▲ Incline Straight Arm Dumbbell Pullover

Upper pectorals and rib cage

Lie on an incline bench with your head on the bench. With a dumbbell at arm's length above the chest, take a deep breath and lower the dumbbell in a semicircular motion over the chest and head to a position behind your head that brings no discomfort to the shoulder area. From this position, return the dumbbell to starting position, still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep your head down, your chest held high, and breathe heavily.

▲ Straight Arm Dumbbell Pullover Across Bench

Lie supine across a bench with your upper back supporting the weight of your upper body and your head off the bench hanging in a downward position. Keep your body and legs nearly straight while trying to drop the hips downward slightly to help raise the rib cage. Place your hands flat against the inside plate of a dumbbell. With the dumbbell held at arm's length above the chest, take a deep breath and lower the weight in a semicircular movement over

FLOOR STRAIGHT ARM DUMBBELL PULLOVER

Pectorals and rib cage

Fig. 1

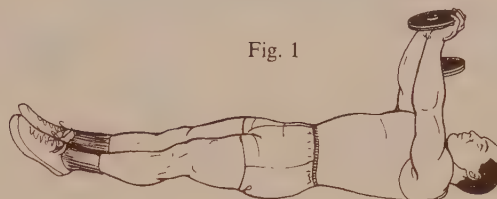


Fig. 2



DECLINE STRAIGHT ARM DUMBBELL PULLOVER

Lower pectorals and rib cage

Fig. 1

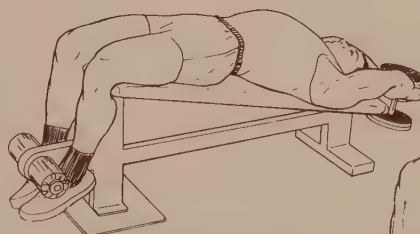
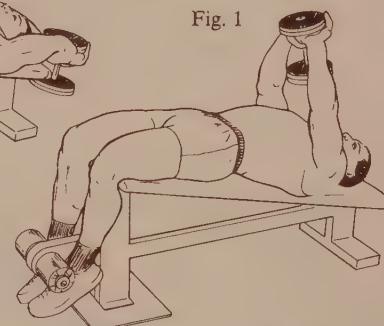


Fig. 2



STRAIGHT ARM DUMBBELL PULLOVER ACROSS BENCH

Pectorals and rib cage

Fig. 1

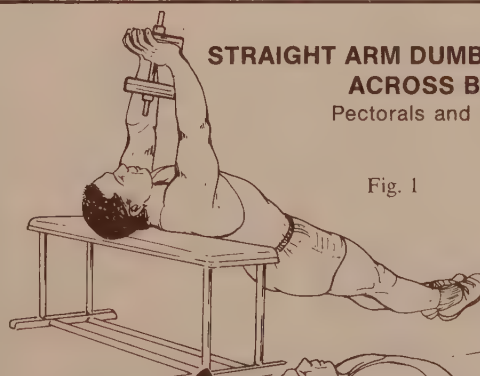
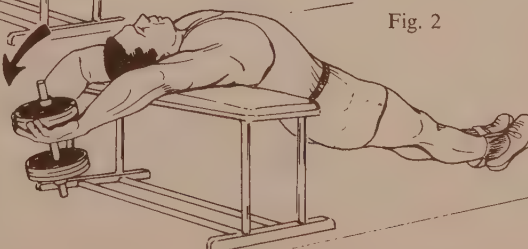


Fig. 2



DECLINE BENT ARM DUMBBELL PULLOVER AND PRESS

Lower pectorals and rib cage

Fig. 1

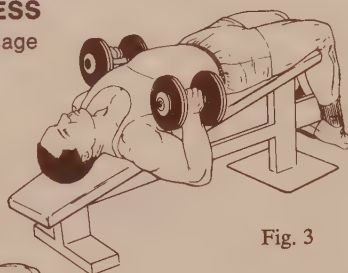


Fig. 3

Fig. 2

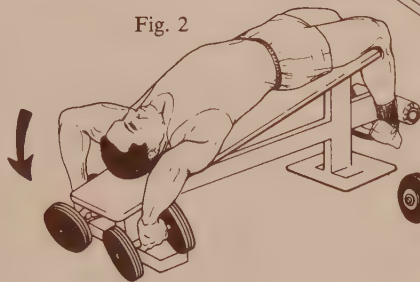
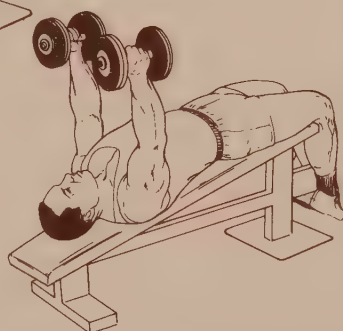


Fig. 4



and behind your head until it is lowered as far back as possible without bringing discomfort to the shoulder area. From this low position, return the dumbbell to starting position, still keeping the elbows in a locked position. Exhale as you reach the top. Keep the head in a downward position, breathe heavily and do not raise the hips.

■ Decline Bent Arm Dumbbell Pullover and Press

Lie supine on a decline bench with your head as close to the end of the bench as possible. With a dumbbell in each hand, place the weights to the sides of your chest about even with the nipples of the pectorals. Keeping the elbows in during the entire exercise, take a deep breath and lower the weights over and past your face so they just pass by your ears on their way downwards towards the floor. Continue to lower the dumbbells until they reach the floor, or go as low as possible without bringing discomfort to the shoulder area. Then pull the dumbbells back to the position at the side of the chest using the same path in which you lowered them. From here, press the dumbbells to arm's length above the chest, keeping the palms of the hands facing each other. As you lower the weights to your chest, let your air out. Both movements will constitute one repetition. Be sure to breathe heavily, keeping the elbows in and hold the rib cage high.

BENT ARM DUMBBELL PULLOVER AND PRESS

Pectorals and rib cage

Fig. 1

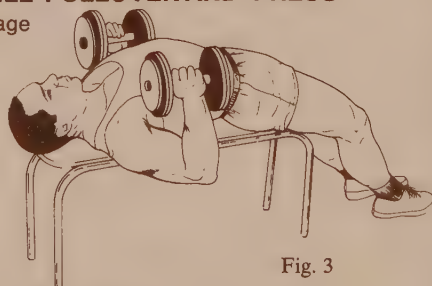


Fig. 3

Fig. 2

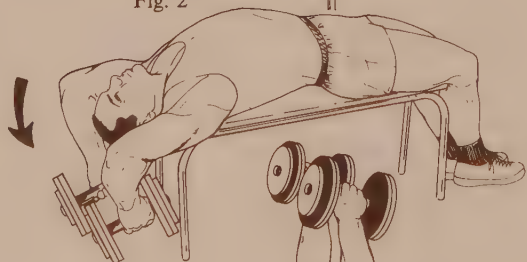


Fig. 4

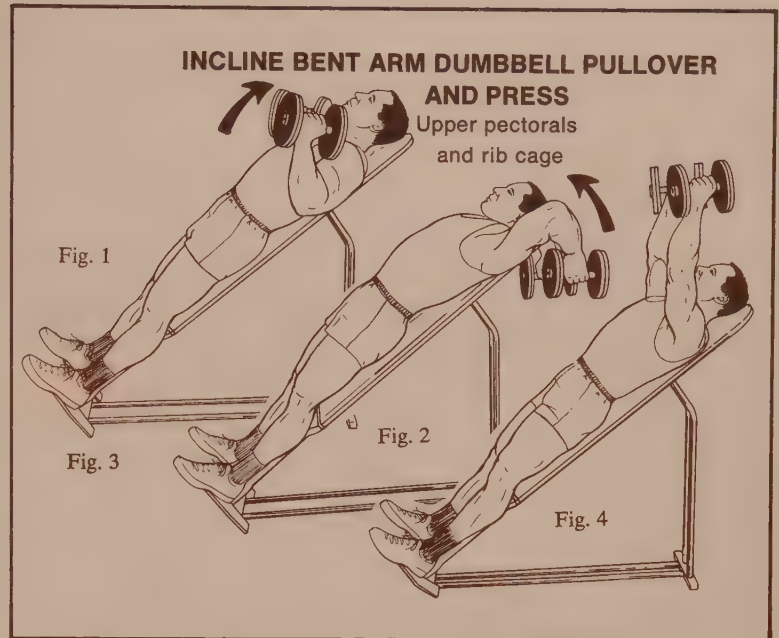


■ Bent Arm Dumbbell Pullover and Press

Lie supine on a flat bench with your shoulders at the end of the bench and your head pointing downward towards the floor. With a dumbbell in each hand, place the weights to the sides of your chest about even with the nipples of the pectorals. Keeping the elbows in during the entire exercise, take a deep breath and lower the weights over and past your face so they just pass by your ears on their way downwards towards the floor. Continue to lower the dumbbells until they reach the floor, or go as low as possible without bringing discomfort to the shoulder area. Then pull the dumbbells back to the position at the sides of the chest using the same path in which you lowered them. Then press the dumbbells to arm's length above the chest, keeping the palms of the hands facing each other. As you lower the weights, let your air out. Both movements constitute one repetition. Be sure to breathe heavily, keep the elbows in, and hold the rib cage high.

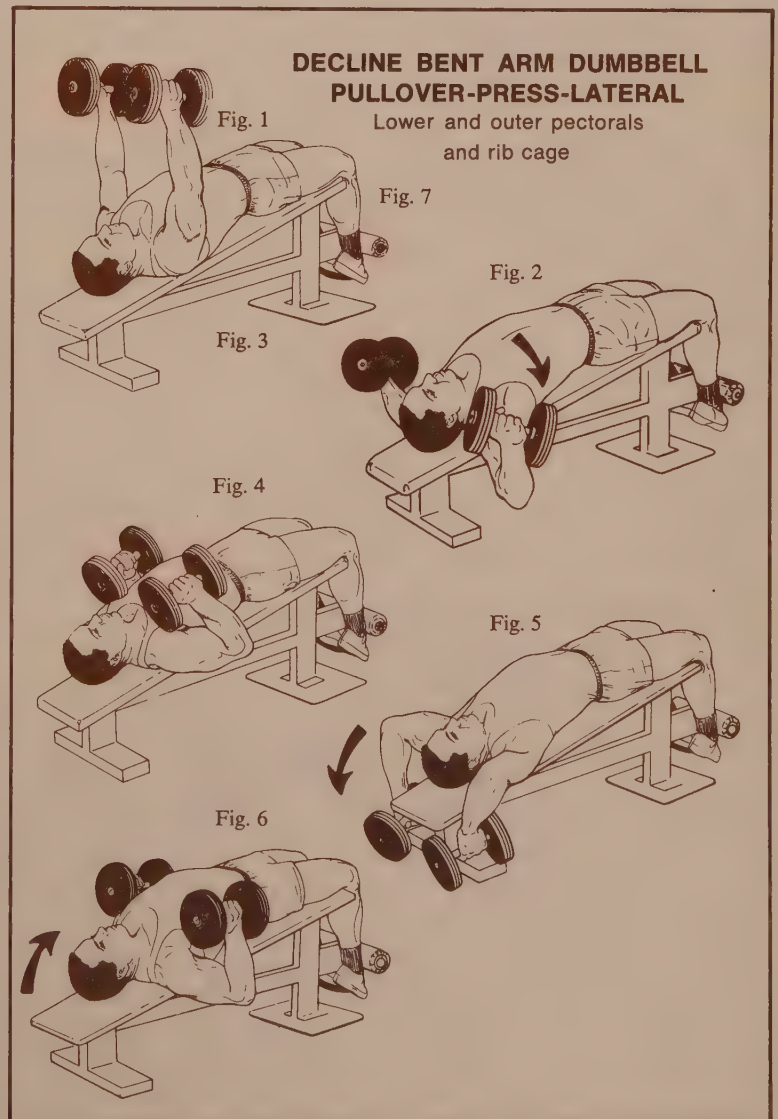
■ Incline Bent Arm Dumbbell Pullover and Press

Lie on an incline bench with your head on the bench. With a dumbbell in each hand, place the weights to the sides of your chest about even with the nipples of the pectorals. Keeping your elbows in during the entire exercise, take a deep breath and raise the weights over and past your face so they just pass by your ears on the way downwards behind your head. Continue to lower the dumbbells as low as possible without bringing discomfort to the shoulder area. Then pull the dumbbells back to the position at the sides of the chest using the same path in which you lowered them. Then press the dumbbells to arm's length above the chest, keeping the palms of the hands facing each other. As you lower the weights, let your air out. Be sure to breathe heavily, keep the elbows in, and hold the rib cage high.



■ Decline Bent Arm Dumbbell Pullover - Press - Lateral

Lie supine on a decline bench with your head as close to the end of the bench as possible. With a dumbbell in each hand, place the weights to the sides of your chest about even with the nipples of your pectorals. Keeping your elbows in during the start of the exercise, take a deep breath and lower the weights over and past your face so they just pass by your ears on their way downwards towards the floor. Continue to lower the dumbbells until they reach the floor, or go as low as possible without bringing discomfort to the shoulder area. Then pull the dumbbells back to the position at the side of your chest using the same path in which you lowered them. From here, press the dumbbells to arm's length above your chest keeping the palms of your hands facing each other. At this point, lower the dumbbells in a semi-circular motion to a down position so the dumbbells are approximately even with your chest put out about ten inches from each side of the chest. Be sure that the elbows are drawn downwards and back so they are in line with your ears. The forearms are slightly out of a vertical position. Press the dumbbells back to starting position using the same arc as in letting them down. From the top position, lower the dumbbells back to the sides of the chest with your elbows in close to your sides and exhale. You then start the second repetition with the pullover, then the press, then the lateral.



MEDIUM GRIP DECLINE STRAIGHT ARM BARBELL PULLOVER

Lower pectorals and rib cage

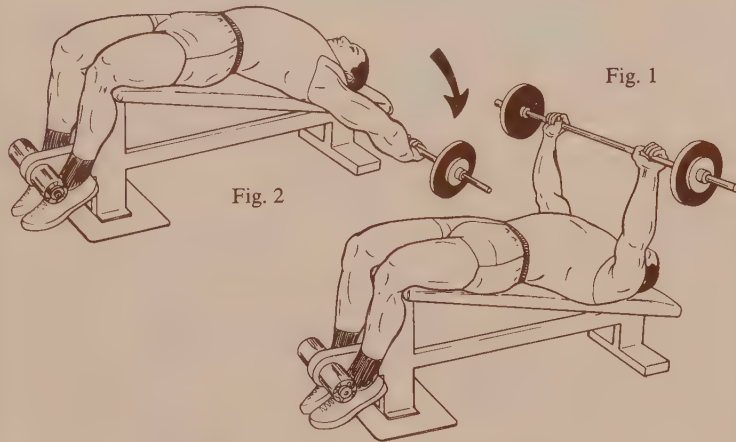


Fig. 1

Fig. 2

WIDE GRIP STRAIGHT ARM BARBELL PULLOVER

Pectorals and rib cage

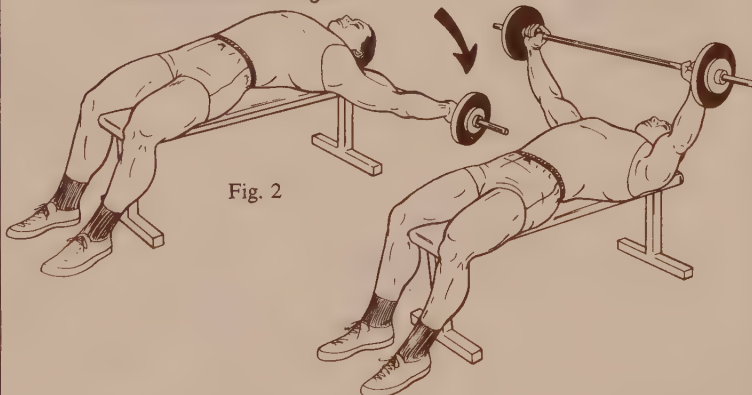


Fig. 1

Fig. 2

CLOSE GRIP STRAIGHT ARM BARBELL PULLOVER ACROSS BENCH

Upper pectorals and rib cage

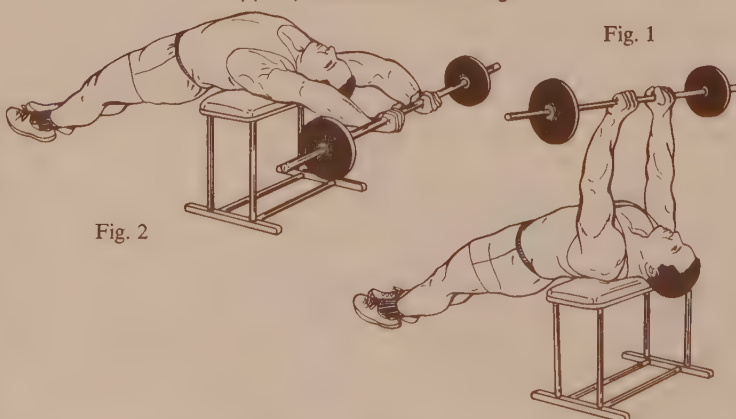


Fig. 1

Fig. 2

▲ Medium Grip Decline Straight Arm Barbell Pullover

Lie on a decline bench with your head as close to the end of the decline bench as possible. With a barbell held at arm's length above the chest and using a hand grip that is about twenty-four inches apart, take a deep breath and lower the barbell in a semi circle past the chest and head until it is lowered to a position behind your head that brings no discomfort to the shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting point. Be sure to keep the chest high and breathe heavily.

▲ Wide Grip Straight Arm Barbell Pullover

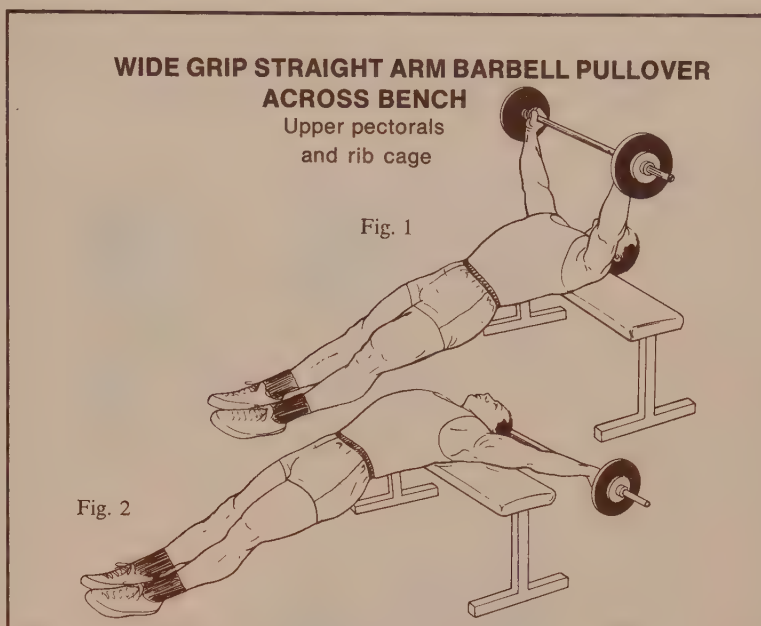
Lie supine on a flat bench with your head at the end of the bench. With a barbell held at arm's length above the chest and the hands spaced collar to collar on the barbell, take a deep breath and lower the barbell in a semicircle past the chest and head until it is lowered to a position behind your head that brings no discomfort to the shoulder area. It is possible you may go nearly to the floor if the bench is not too high. From the low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head down, your chest high, breathe heavily and do not raise your hips off the bench.

▲ Close Grip Straight Arm Barbell Pullover Across Bench

Lie supine across a bench with your upper back supporting the weight of the upper body and your head off the bench hanging in a downward position. Keep your body and legs nearly straight while trying to drop the hips downward slightly to help raise the rib cage. Holding a barbell at arm's length above the shoulders and having a hand spacing about ten inches apart, take a deep breath while lowering the barbell in a semi-circle over and behind your head until it is lowered as far back as possible without bringing discomfort to the shoulder area. From the low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head in a downward position, breathe heavily and do not raise the hips up.

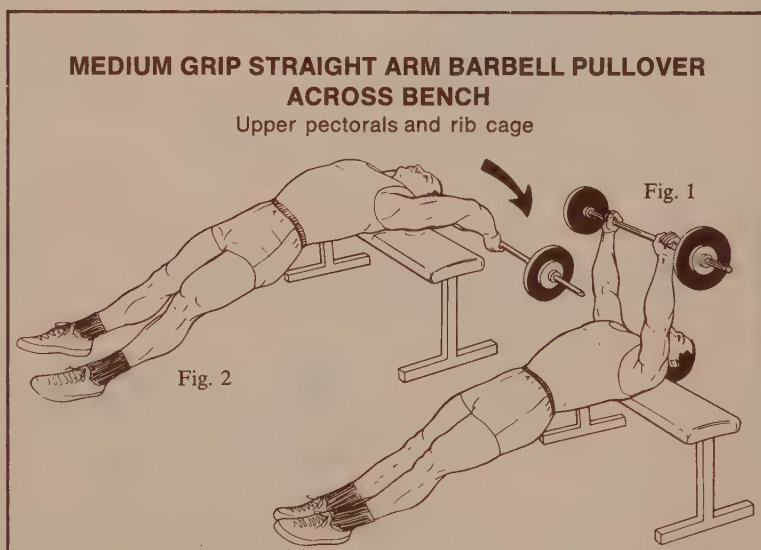
▲ Wide Grip Straight Arm Barbell Pullover Across Bench

Lie supine across a bench with your upper back supporting the weight of the upper body and your head off the bench hanging in a downward position. Keep your body and legs nearly straight while trying to drop the hips downward slightly to help raise the rib cage. Holding a barbell at arm's length above the shoulders and having a collar to collar grip, take a deep breath while lowering the barbell in a semicircle over and behind your head until it is lowered as far as possible without bringing discomfort to the shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting point. Keep the head in a downward position, breathe heavily and do not raise the hips up.



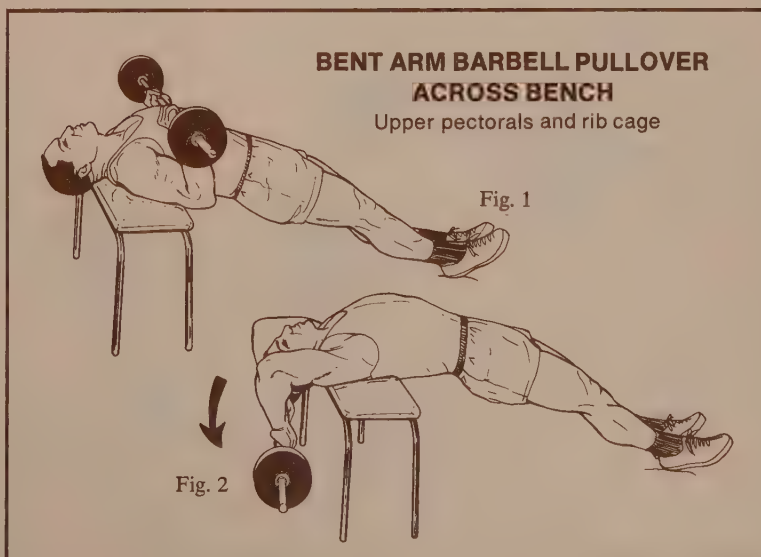
▲ Medium Grip Straight Arm Barbell Pullover Across Bench

Lie supine across a bench with your upper back supporting the weight of the upper body and your head off the bench hanging in a downward position. Keep your body and legs nearly straight while trying to drop the hips downward slightly to help raise the rib cage. Holding a barbell at arm's length above the shoulders and having a hand grip that is about twenty-four inches apart, take a deep breath while lowering the barbell in a semicircle over and behind your head until it is lowered as far back as possible without bringing discomfort to the shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head in a downward position, breathe heavily and do not raise the hips up.



▲ Bent Arm Barbell Pullover Across Bench

Lie cross way on a bench with your shoulders on the bench supporting your body while your head is facing down toward the floor and your legs are straight out in front of you. Drop your hip region down to put more stretch on your rib cage. With a barbell placed on your chest just below the nipples on your pectorals and your hands on the bar about ten inches apart, inhale and lower the barbell over your shoulders and head in a semicircular motion down toward the floor. Try to lower the weight until your upper arms are parallel with the floor while having your lower arms vertical with the floor. Pull the weight back to starting



BENT ARM BARBELL PULLOVER

Upper pectorals and rib cage

Fig. 1

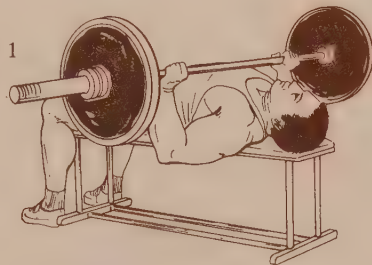
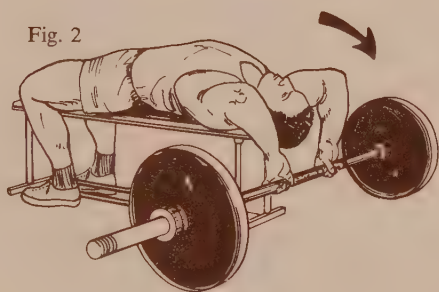


Fig. 2

**BENT ARM BARBELL PULLOVER AND PRESS**

Pectorals and rib cage

Fig. 1

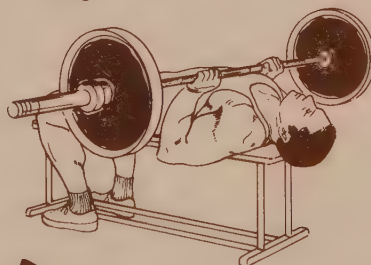


Fig. 2

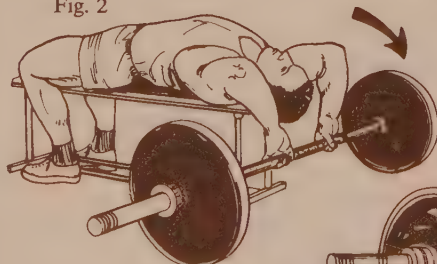
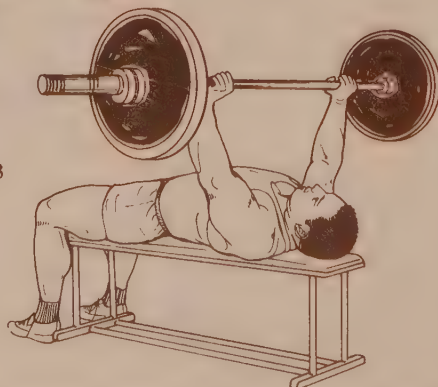


Fig. 3



position and exhale. Try to keep the path of the barbell as close to your face coming and going as possible. Be sure to keep your elbows in close and do not let them wander out to the sides. This will put undue stress on your shoulder joints.

▲ Bent Arm Barbell Pullover

Lie supine on a flat bench with your shoulders at the end of the bench and your head pointing downward towards the floor. With a barbell on your chest resting in line with the nipples of the pectorals, use a hand grip that is about fourteen inches wide. Keeping the elbows in during the entire exercise, take a deep breath and lower the weight over your chest and face, keeping the barbell as close to the body as you can without scraping your nose. Continue to lower the weight until it touches the floor, or as low as is a comfortable position for you. Pull the barbell back to the chest, using the same path in which you lowered it. Exhale as you are doing so. Be sure to breathe heavily, keep the elbows in, and hold the chest high.

■ Bent Arm Barbell Pullover and Press

Lie supine on a flat bench with your shoulders at the end of the bench and your head pointing downward towards the floor, with a barbell on your chest resting in line with the nipples of the pectorals using a hand grip that is about fourteen inches wide. Keeping the elbows in during the entire exercise, take a deep breath and lower the barbell over your chest and face keeping the weight as close to the body and face as you can without scraping your nose. Continue to lower the weight until it touches the floor or as low as is a comfortable position for your shoulders, pull the barbell back to the chest using the same path in which you lowered it. Then press the barbell to arm's length above the chest and as you are lowering the weight let your air out. Both movements will constitute one repetition. Be sure to breathe heavily, keep the elbows in and hold the rib cage high.

■ Decline Bent Arm Barbell Pullover & Press

Lie on a decline bench with your head at the end of the decline bench, with a barbell on your chest resting in line with the nipples of the pectorals and using a hand grip that is about fourteen inches wide. Keeping the elbows in during the entire exercise, take a deep breath and lower the barbell over your chest and face keeping the weight as close to the body and face as you can with-

out scraping your nose. Continue to lower the barbell until it reaches the floor, or as low as is a comfortable position for your shoulders, pull the barbell back to the chest using the same path in which you lowered it. Then press the barbell to arm's length above your chest and as you are lowering the weight let your air out. Both movements will constitute one repetition. Be sure to breathe heavily, keep the elbows in and hold the rib cage high.

▲ Decline Bent Arm Barbell Pullover

Lie on a decline bench with your head fairly close to the end of the bench. With a barbell placed on your chest resting about an inch below the nipples of the pectorals, inhale and lower the barbell over your head. Keep it as close to your face as is comfortable to you. You must keep the arms in a bent position during the entire exercise. Do not let the arms angle out as you do the pullover motion. When you have reached the position where the barbell is at the lowest possible comfortable position, pull the bar back to starting position using the same arc as you did to let it down. You must try to keep your chest high and full of air during the pullover. Exhale as the weight is brought back to starting position.

▲ Chest Cross Over on Bench

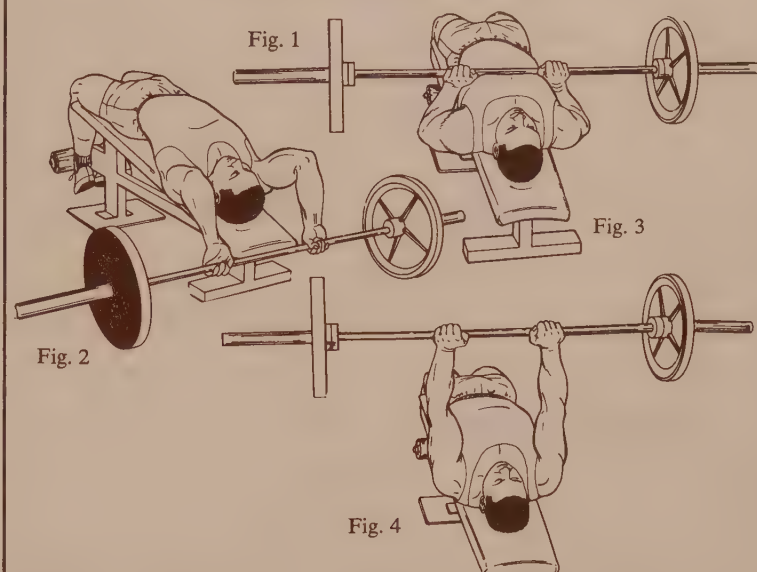
Lie supine on a flat bench with two light dumbbells at arm's length above the shoulders. Keeping the arms as straight as possible, lower the dumbbells out to each side of the chest in a semicircular motion until the weights are about even with the sides of your chest. As you bring the dumbbells back to their position over the chest, turn the dumbbells so the palms of the hands are facing away from your head and cross your arms over your chest trying to cramp the pectoral muscles. Bend your elbows slightly so you can force your arms across the body more and tighten the pectorals. Alternate the crossing of the arms with each repetition you perform. Inhale as you lower the dumbbells and exhale as you cross your arms.

▲ Close Grip Push-Ups on Floor

Start this exercise with the body in the position as shown in illustration #1. The hands should be approximately four inches apart. Keep the body rigid and lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position.

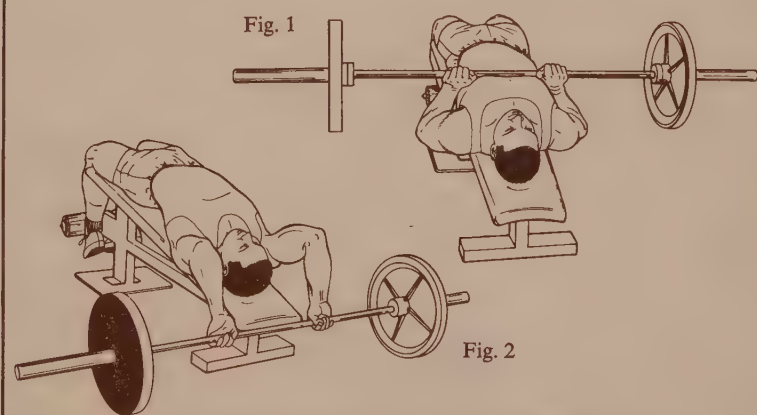
DECLINE BENT ARM BARBELL PULLOVER AND PRESS

Lower pectorals and rib cage



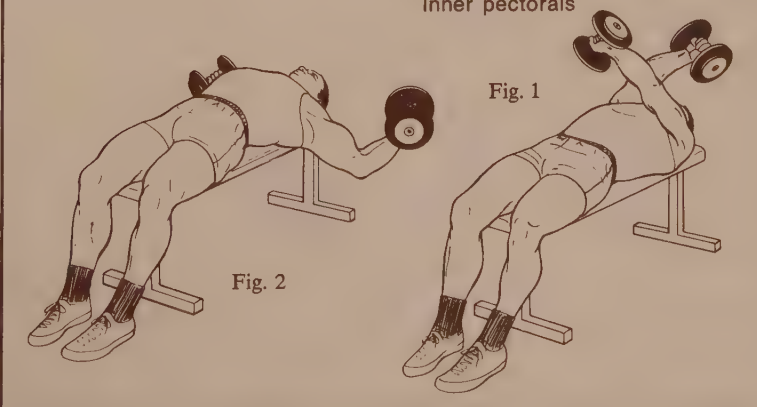
DECLINE BENT ARM BARBELL PULLOVER

Lower pectorals and rib cage



CHEST CROSS OVER ON BENCH

Inner pectorals



CLOSE GRIP PUSH-UPS ON FLOOR

Inner pectorals and triceps

Fig. 1



Fig. 2

MEDIUM GRIP PUSH-UPS ON FLOOR

Pectorals and triceps

Fig. 1



Fig. 2

WIDE GRIP PUSH-UPS ON FLOOR

Outer pectorals and triceps

Fig. 1



Fig. 2

WEIGHTED CLOSE GRIP PUSH-UPS ON FLOOR

Inner pectorals and triceps

Fig. 1



Fig. 2

**▲ Medium Grip Push-Ups on Floor**

Start this exercise with the body in the position as shown in illustration #1. Your hands should be placed about twenty-four inches apart. Keep your body rigid and lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale as you lower yourself and exhale while returning to starting position.

▲ Wide Grip Push-Ups on Floor

Start this exercise with the body in the position shown in illustration #1. The hands should be placed as wide as comfortably possible. Keep your body rigid while lowering yourself to the position shown in illustration #2. Pause at the bottom and then push yourself back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to the starting position.

■ Weighted Close Grip Push-Ups on Floor

Start this exercise with your body in the position as shown in illustration #1. Your hands should be approximately four inches apart. Have a training partner place a barbell plate high on your upper back. Keep your body rigid and lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position. Be sure to keep your chest high and your back straight.

■ Weighted Wide Grip Push-Ups on Floor

Outer pectorals and triceps

Start this exercise with your body in the position as shown in illustration #1. Your hands should be approximately thirty-six inches apart. Have a training partner place a barbell plate high on your upper back. Keep your body rigid and lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position. Be sure to keep your chest high and your back straight.

■ WEIGHTED MEDIUM GRIP PUSH-UPS ON FLOOR

Pectorals and triceps

▲ Close Grip Push-Ups Feet on Bench

Start this exercise with the body in the

position as shown in illustration #1. The hands should be approximately four inches apart. Keep the body rigid and lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Be sure to keep the chest high and concentrate on the pectorals.

▲ Medium Grip Push-Ups Feet on Bench

Start this exercise with your body in the position as shown in illustration #1. The hands should be placed about twenty-four inches apart. Keep your body rigid and lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position. Be sure to keep your chest high and concentrate on your pectorals.

▲ Wide Grip Push-Ups Feet on Bench

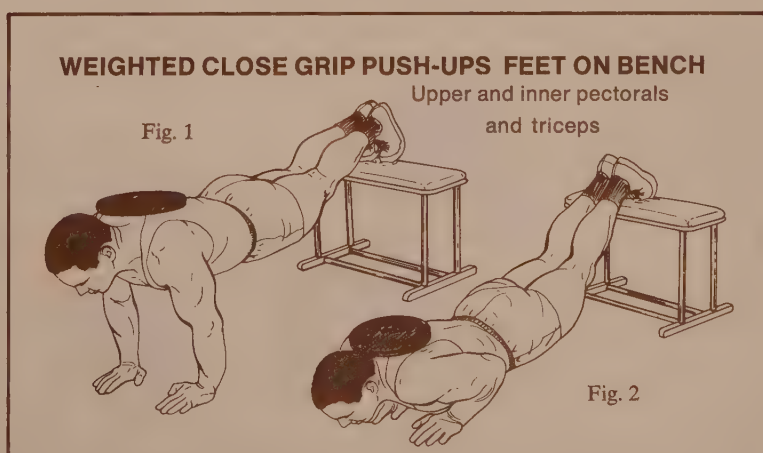
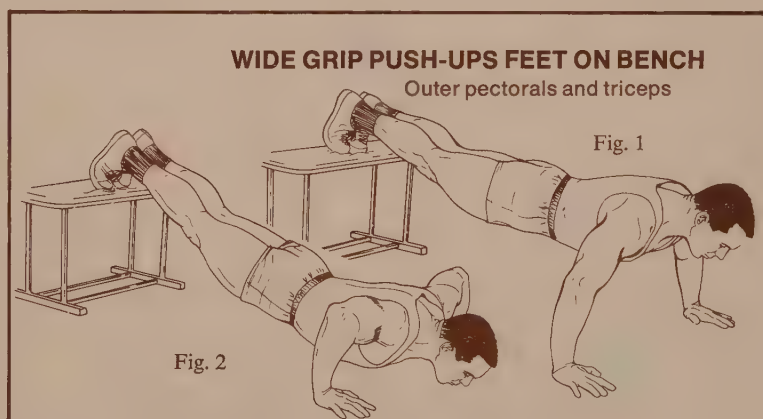
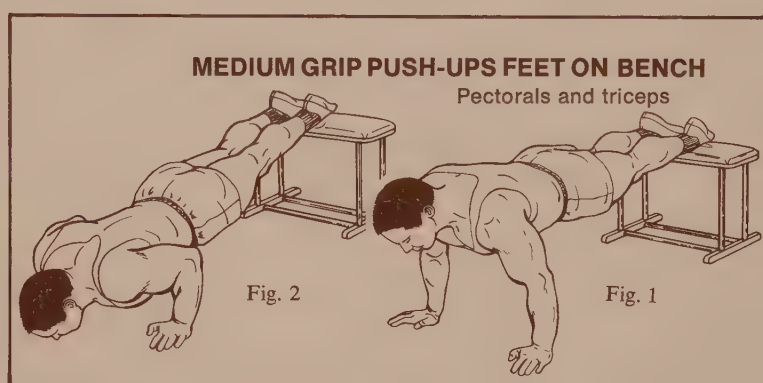
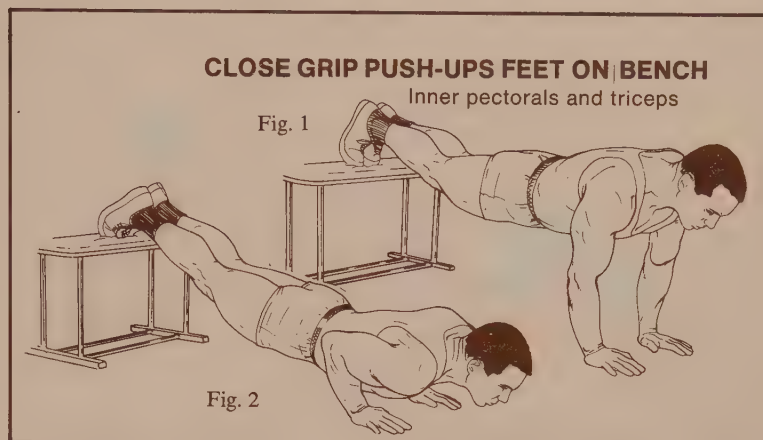
Start this exercise with the body in the position as shown in illustration #1. The hands should be as wide as is comfortably possible. Keep the body rigid and lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position. Be sure to keep the chest high and concentrate on the pectorals.

■ Weighted Close Grip Push-Ups Feet on Bench

Start this exercise with your body in the position as shown in illustration #1. Have a training partner place a barbell plate high on your upper back. Your hands should be approximately four inches apart. Keep your body rigid. Lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position. Be sure to keep your chest high and your back straight.

■ Weighted Medium Grip Push-Ups Feet on Bench

Start this exercise with your body in the position as shown in illustration #1. Have a training partner place a barbell plate high on your upper back. Your hands should be approximately twenty-four inches apart. Keep your body rigid. Lower yourself to the position shown in illustration



WEIGHTED MEDIUM GRIP PUSH-UPS**FEET ON BENCH**

Pectorals and triceps

Fig. 1

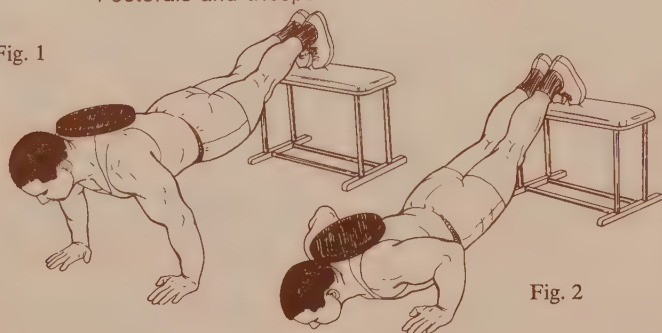


Fig. 2

WEIGHTED WIDE GRIP PUSH-UPS**FEET ON BENCH**

Upper and outer pectorals

Fig. 1

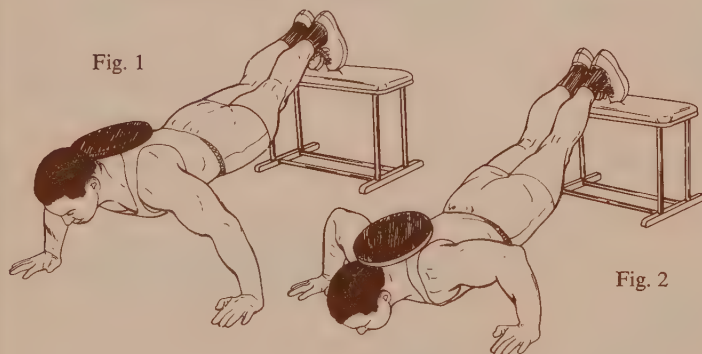


Fig. 2

MEDIUM GRIP PUSH-UPS BETWEEN STOOLS

Outer pectorals

Fig. 1

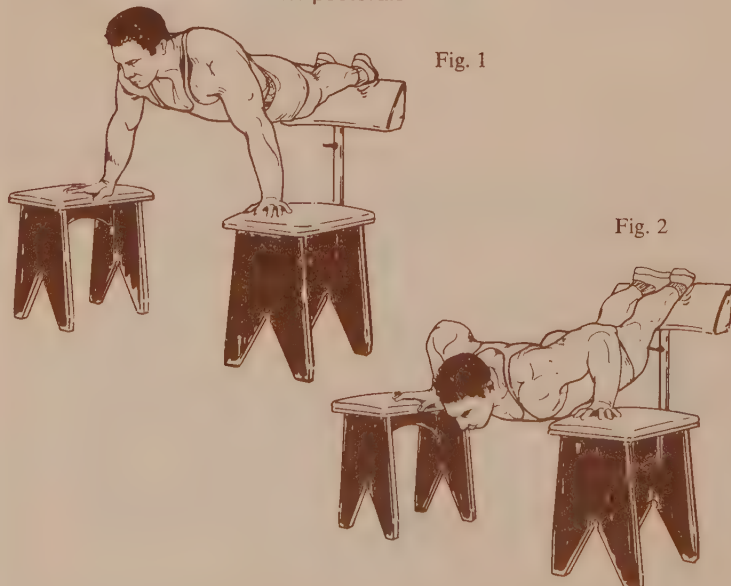


Fig. 2

#2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position. Be sure to keep your chest high and your back straight.

■ **Weighted Wide Grip Push-Ups**
Feet on Bench

Start this exercise with your body in the position as shown in illustration #1. Have a training partner place a barbell plate high on your upper back. Your hands should be as wide as is comfortably possible. Keep your body rigid. Lower yourself to the position shown in illustration #2. Pause at the bottom and then push back to starting position. Inhale before lowering yourself, hold your breath and exhale while returning to starting position. Be sure to keep your chest high and your back straight.

■ **Medium Grip Push-Ups Between Stools**

This is an advanced form of push-ups, one can lower themselves as shown, so that more stretch can be placed on the pectoral muscles. Place your feet higher than the position of the hands on the stools, as illustrated. Take a deep breath and lower yourself to the position shown in the second illustration. Inhale as you lower yourself and exhale as you bring yourself back to starting position. As the exercise becomes easier, separate the benches, or stools, to enable you to dip below the level of the hands.

■ **Wide Grip Push-Ups Between Stools**

Outer pectorals and triceps

This is an advanced form of push-ups. One can lower themselves, as shown, so that more stretch can be placed on the pectoral muscles. Place your feet higher than the position of the hands on the stools as illustrated. Have your hand spacing about thirty-six inches apart. Take a deep breath and lower yourself to the position shown in the second illustration. Exhale as you return to starting position.

■ **Weighted Medium Grip Push-Ups**
Between Stools

This is an advanced form of push-ups. One can lower themselves, as shown, so that more stretch can be placed on the pectoral muscles. Place your feet higher than the position of your hands on the stools, as

illustrated. Have your hand spacing about twenty-four inches apart and have your training partner place a barbell plate high on your upper back. Take a deep breath and lower yourself to the position shown in the second illustration. Exhale as you return to starting position.

■ Weighted Wide Grip Push-Ups Between Stools

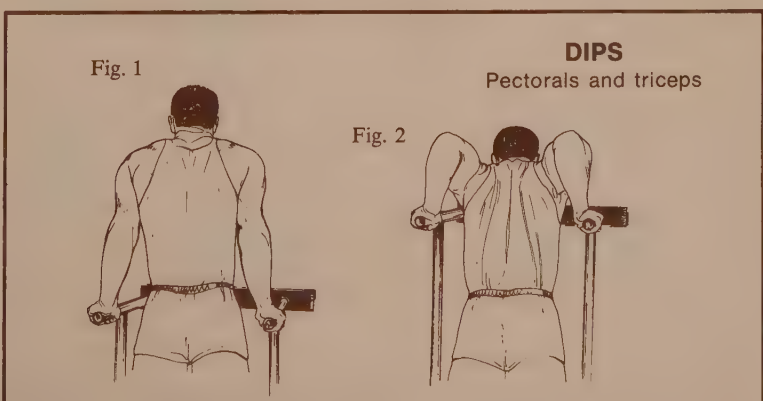
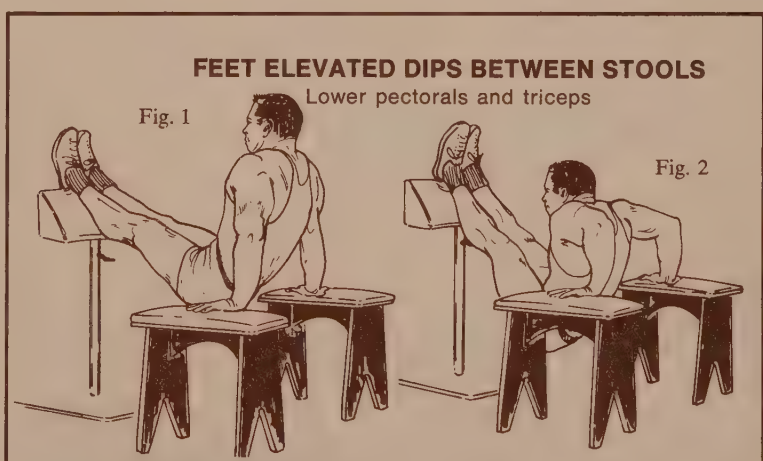
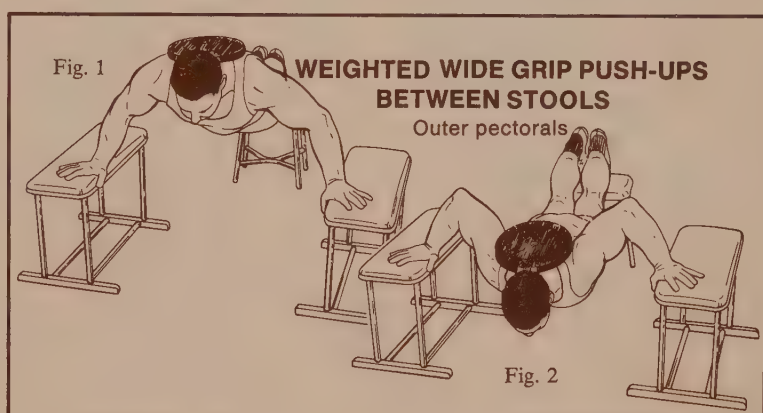
This is an advanced form of push-ups. One can lower themselves, as shown, so that more stretch can be placed on the pectoral muscles. Place your feet higher than the position of your hands on the stools, as illustrated. Have your hand spacing about thirty-six inches apart and have your training partner place a barbell plate high on your upper back. Take a deep breath and lower yourself to the position shown in the second illustration. Exhale as you return to starting position.

▲ Feet Elevated Dips Between Stools

Place two stools, or chairs, about four feet in front of an object that is about waist high that you can rest your heels on. Position the stools slightly wider than shoulder width. Assume the position as shown in illustration #1. Inhale and lower yourself between the stools by unlocking your elbows until your upper arms are nearly parallel with the floor. Keep your legs straight and your head up. Return to starting position and exhale.

■ Dips

Use a set of parallel bars or a regular dip stand for this exercise. Position yourself on the bars so you are held erect by your arms but able to drop to a low position without having your feet touch the floor. Keep your elbows into your sides as much as possible while lowering your body downward by bending your arms. You should continue downward until your forearms and biceps come together. Pause a short time and then press yourself back to arm's length forcing a lock out of the elbows thereby contracting the tricep and pectoral muscles. Do not let your body swing back and forth during this exercise. With a little practice and concentration, it will be very easy for you to control the body position. Inhale as you lower yourself and exhale as you push yourself back to starting position.

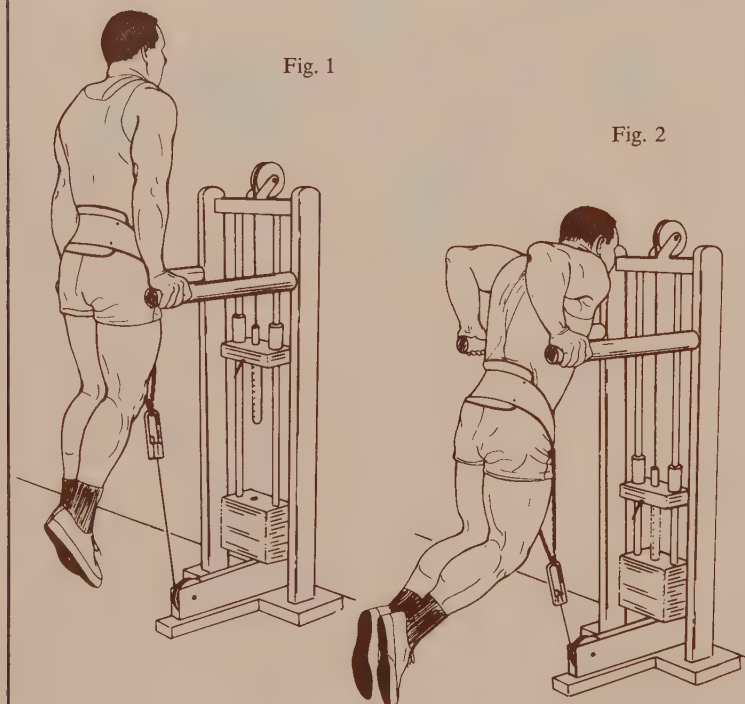


DIPS WITH WEIGHT

Pectorals and triceps

Fig. 1

Fig. 2

**■ Dips With Weight**

You can either use a webbed belt or a piece of rope to hold the dumbbell between your thighs while performing this exercise. Use a set of parallel bars or a regular dip stand for this exercise. Position yourself on the bars so you are held erect by your arms but able to drop to a low position without having your feet touch the floor. Keep your elbows into your sides as much as possible while lowering your body downward by bending your arms. You should continue downward until your forearms and biceps come together. Pause a short time and then press yourself back to arm's length forcing a lock out of the elbows thereby contracting the tricep and pectoral muscles. Do not let your body swing back and forth during this exercise. With a little practice and concentration, it will be very easy for you to control the body position. Inhale as you lower yourself and exhale as you push yourself back to starting position.

▲ Lying Close Grip Press Under Leg Press Machine

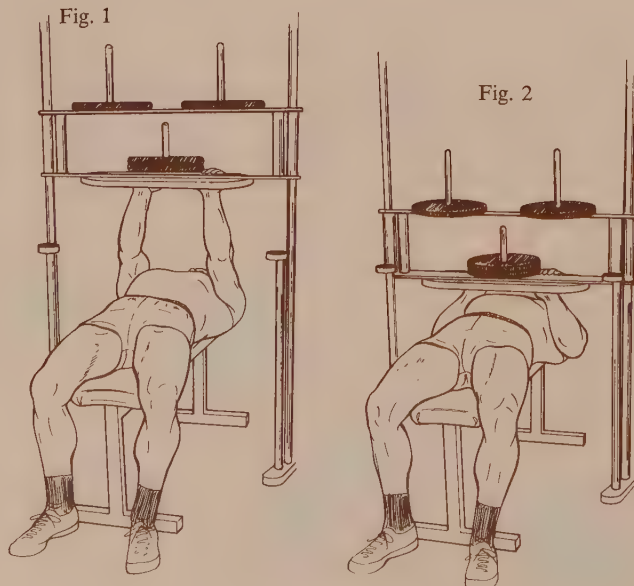
Remove the back rest pad from under a leg press machine and put a flat bench in its place. Lie on the bench under the machine and position your upper body so your head is at the end of the bench and the foot rest pad of the machine is above your chest. The nearest end of the foot pad should be in line with the nipples of your pectorals. Place your hands around the side of the pad about ten inches apart. Press the plate holder to arm's length above your shoulders. Have your training partner turn the safety stops so you are able to lower the pad directly to your chest. Inhale as you let the pad down and keep your elbows in close to your sides. Press the pad back to the top position and exhale. On the final repetition of the set, your training partner should turn the safety stops back to keep the pad off your chest.

LYING CLOSE GRIP PRESS UNDER LEG PRESS MACHINE

Inner pectorals

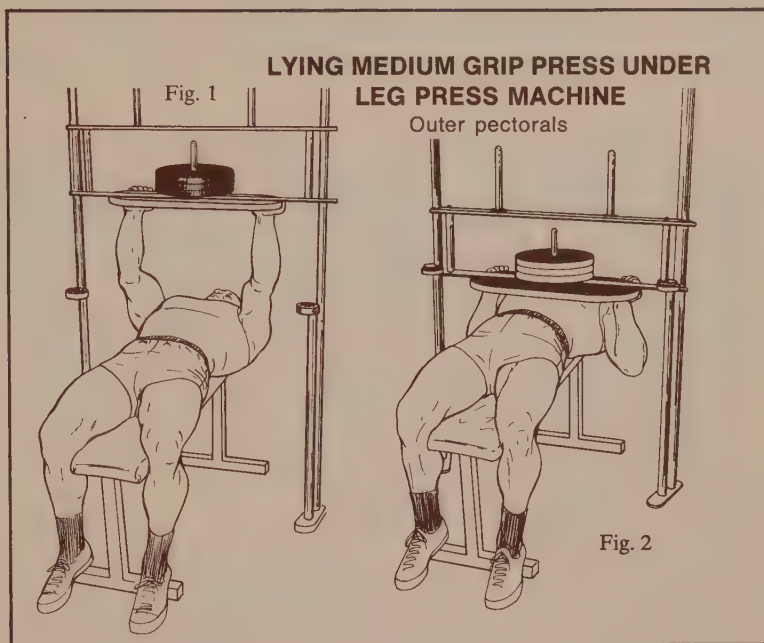
Fig. 1

Fig. 2

**▲ Lying Medium Grip Press Under Leg Press Machine**

Remove the back rest pad from under a leg press machine and put a flat bench in its place. Lie on the bench under the machine and position your upper body so your head is at the end of the bench and the foot rest pad of the machine is above your chest. The nearest end of the foot pad

should be in line with the nipples of your pectorals. Place your hands around the side of the pad about eighteen to twenty inches apart. Press the plate holder to arm's length above your shoulders. Have your training partner turn the safety stops so you are able to lower the pad directly to your chest. Inhale as you let the pad down and keep your elbows in close to your sides. Press the pad back to the top position and exhale. On the final repetition of the set, your training partner should turn the safety stops back to keep the pad off your chest.



Introduction to Shoulder Section

The shoulder is comprised of a ball and socket joint which allows for multiple movements of the shoulder, shoulder girdle and arm. A few of the most important muscles which aid in the function of the shoulder are the anterior deltoid, posterior deltoid, the coracobrachialis, latissimus dorsi and the teres major.

It is important to understand the action of the major shoulder muscles individually as well as collectively in weight training so that you, the body builder, or athlete, can identify with those areas which may be of greatest importance to your specific activity.

Applying the fundamental movements of the shoulder and their respective muscle groups, we can identify athletic activities which require specific muscular movements and function. Almost all sports require some shoulder movement, some more demanding than others. The following discussion categorizes some of those movements and the activities which demand them.

Shoulder flexion is an extremely important movement in walking and running. It is a strong contributor of overhead throwing, pushing, striking, bowling, hurdling, and jumping. In some strokes of tennis, handball, squash, badminton, and some movements of dance and gymnastics, shoulder flexion occurs.

Shoulder extension is extremely important in walking, running, climbing, chinning, pole vaulting, fencing, tennis, swimming, etc.

The outward rotation of the shoulder is probably the weakest of the shoulder movements. This movement is noted in the use of the elbow as in thrusting a football, soccer and other contact sports. It is also used with shoulder flexion in jumping, to maintain balance during skiing, punting, skating, and some gymnastic moves.

Weakness in any of the shoulder muscles interferes with all the aforementioned athletic activities and, more important, can lead to great instability of

the shoulder and a predisposition towards shoulder injury. Shoulder-joint and musculature injury are usually related to structural vulnerability and/or weakness causing instability or too much freedom of movement of the joint. This usually is the result of poor or improper muscular development.

The importance of a strong subscapularis muscle cannot be overemphasized for it is that muscle which plays an important role in the prevention of shoulder joint dislocation.

The most common athletic injuries of the shoulder are usually the result of trauma in contact sports such as football, wrestling, etc. These injuries, which include tearing or stretching of the ligaments between the top outer aspect of the shoulder blade and the collarbone, result from a downward blow against the outer end of the shoulder.

It should be noted that chronic shoulder dislocation, is normally associated with an inherited defect in the shoulder complemented with trauma.

Some weight training activities too may cause specific shoulder injuries. Exercises to be careful of are the straight arm pullover, wide grip bench press, and supine outward fly-type movements with dumbbells away from the body when the elbows are turned inward. These type of lifting techniques could possibly lead to injuries. Many times by changing the technique of the lift to a more efficient biomechanical function, the stress is decreased and the injury prevented or cured.

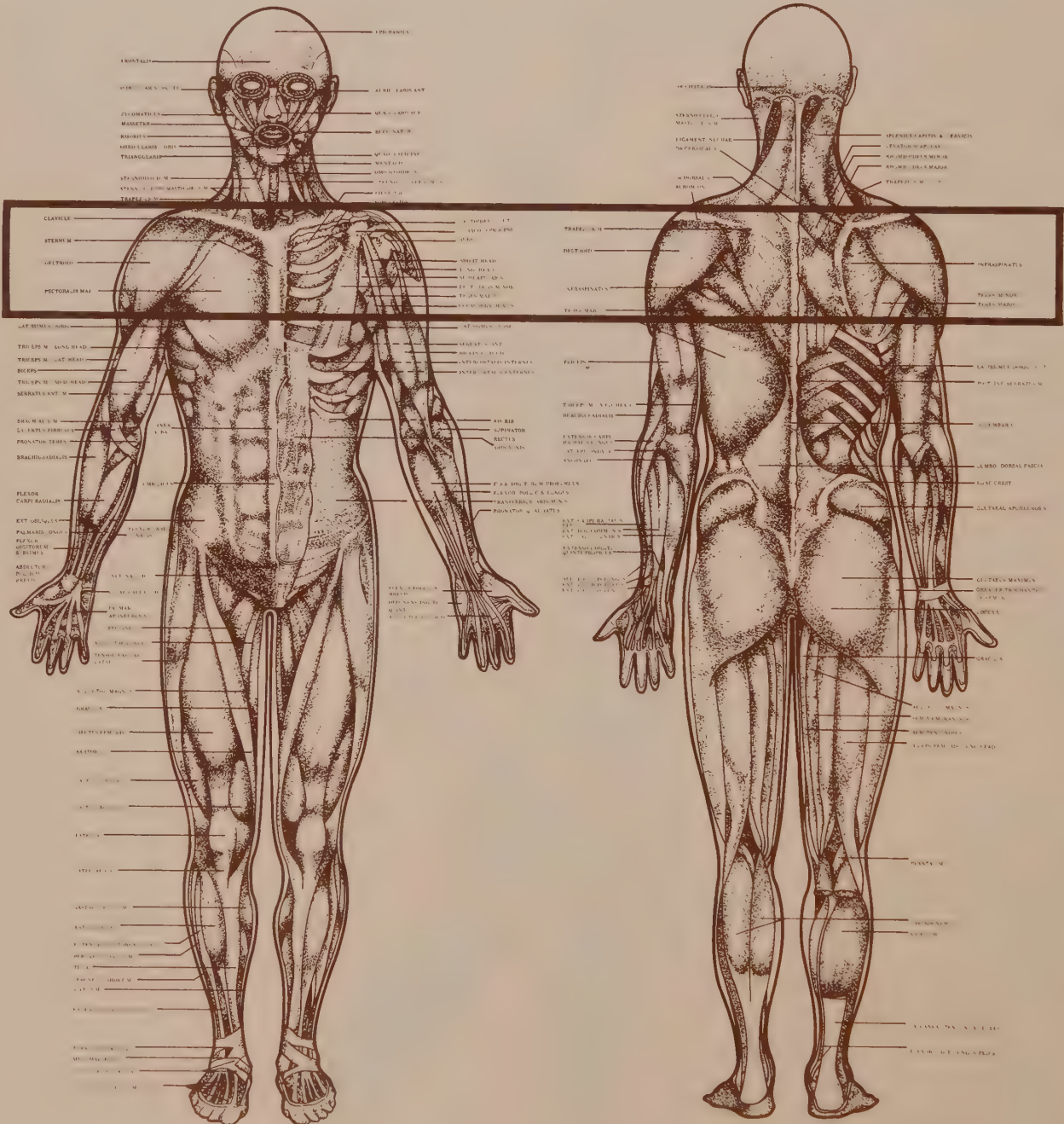
The best protection in preventing injury to the shoulder is a well-prepared warm up exercise program. If the musculature of the shoulder is well developed the incidence of injury even by unforeseen trauma is greatly decreased. Therefore, weight training is an essential part of preparation for almost any athletic activity which requires the shoulder or associated musculature.

Shoulder section



A five foot measuring tape was not large enough to measure Pearl's shoulder girth at the time this photo was taken.

Muscle Anatomy



Anterior View

Posterior View

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

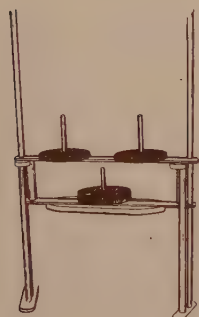
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

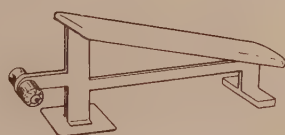
Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

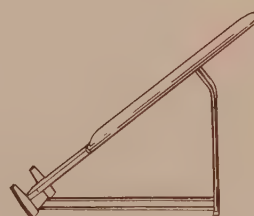
EQUIPMENT NEEDED FOR SHOULDER SECTION



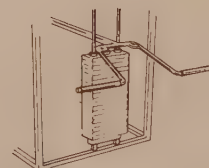
Wall Type Leg Press



Decline Bench

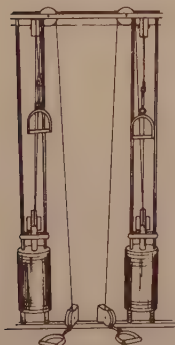


Incline Bench



Universal Bench Press Part

High Wall Pulley



Pulley Handles

Low Wall Pulley



Training Partner



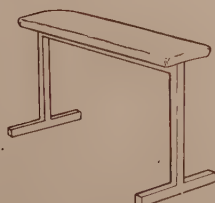
Barbell



Dumbbells



Chair



High Flat Bench



Flat Bench



Power Rack

STANDING PALM OUT ONE ARM DUMBBELL PRESS

Front and outer deltoids

Fig. 1



Fig. 2



▲ Standing Palm Out One Arm Dumbbell Press

Clean a dumbbell to shoulder height. Use the other hand to hold on to an object such as an incline bench to support the upper body and lock the legs and hips solidly. Keep the elbow out slightly and have the palm of your hand facing outward. Take a deep breath and press the dumbbell straight up. As you commence to lower the weight, exhale. Perform the prescribed number of repetitions and change hands. Always keep the palms facing outward.

▲ Standing Palm in One Arm Dumbbell Press

Clean a dumbbell to shoulder height. Use the other hand to hold on to an object such as an incline bench to support the upper body and lock the legs and hips solidly. Keep the elbow in slightly and have the palm of your hand facing in. Take a deep breath and press the dumbbell straight up. As you commence to lower the weight, exhale. Perform the prescribed number of repetitions and change hands. Always keep the palms facing inward.

STANDING PALM IN ONE ARM DUMBBELL PRESS

Front and outer deltoids

Fig. 1

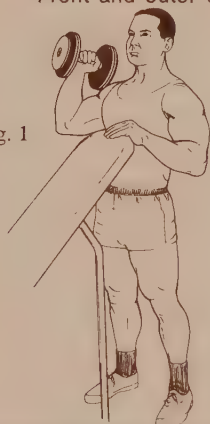


Fig. 2



▲ Standing Palms In Dumbbell Press

Clean two dumbbells to shoulder height. Lock the legs and hips solidly. This will give you a solid platform from which to push. Keep the elbows in slightly and have the palms of the hands facing each other. Press the weights overhead to arm's length. Lower the weights to starting position, keeping the elbows in. Inhale before the press and exhale when lowering the dumbbells.

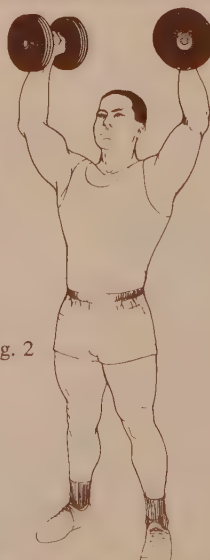
STANDING PALMS IN DUMBBELL PRESS

Front and outer deltoids

Fig. 1



Fig. 2



▲ Seated Palms In Dumbbell Press

Front and outer deltoids

Clean two dumbbells to shoulder height. Sit on a bench or stool. Keep your feet planted firmly on the floor. Keep your chest high, head up, and back straight. Keep your elbows in slightly and have the palms of the hands facing each other. Press the weights overhead to arm's length. Lower the weights to starting position, keeping the elbows in. Inhale before the press and exhale when lowering the dumbbells.

▲ Seated Back Supported Palms in Dumbbell Press

Clean two dumbbells to your shoulders and then sit on a bench or chair that will

give support to your upper back. Keep your feet planted firmly on the floor. With the palms facing inward, inhale and press the dumbbells to arm's length overhead. Exhale as you are lowering the weights back to starting position. Be sure to keep the arms in as you are performing this exercise. Do not let the elbows wander out.

▲ Seated Palms in Alternated Dumbbell Press

Clean two dumbbells and sit at the end of a bench. With the dumbbells at shoulder height, commence to press the dumbbell in the right hand to arm's length overhead, keeping the palms in and the elbows and arms in. Lower the dumbbell in the right hand back to starting position and then press the dumbbell in the left hand in the same manner. Maintain a rigid body position, doing all the work with the shoulders and arms. Do not lean from side to side while pressing. Inhale as you start to press the dumbbell and exhale as you are lowering the weight.

▲ Seated Back Supported Palms in Alternated Dumbbell Press

Front and outer deltoids

Clean two dumbbells to shoulder height and sit on a chair that will give support to your upper back. Keep your head up and feet about sixteen inches apart. With your elbows in slightly, have the palms of your hands facing each other. Take a deep breath and press the right arm straight up over your right shoulder. As you commence to lower the right arm, begin to press the left arm to arm's length above your left shoulder, letting your air out as the left arm is raised. Be sure to keep the palms of the hands facing each other during the entire exercise.

▲ Standing Palms in Alternated Dumbbell Press

Clean two dumbbells to shoulder height. Lock the legs and hips solidly. Keep the elbows in slightly and have the palms of your hands facing each other. Take a deep breath and press the right arm straight up over your right shoulder. As you commence to lower the right arm, begin to press the left arm to arm's length above your left shoulder, letting the air out as the left arm is raised. Be sure to keep the palms of the hands facing each other during the entire exercise.

SEATED BACK SUPPORTED PALMS IN DUMBBELL PRESS

Front and outer deltoids

Fig. 1



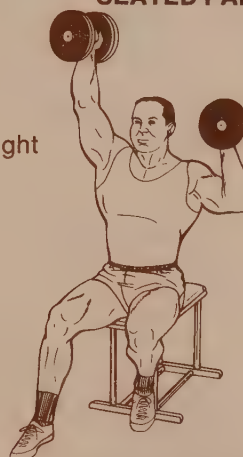
Fig. 2



SEATED PALMS IN ALTERNATED DUMBBELL PRESS

Front and outer deltoids

right



left



STANDING PALMS IN ALTERNATED DUMBBELL PRESS

Front and outer deltoids

right



left



SEATED PALMS OUT DUMBBELL PRESS

Front and outer deltoids

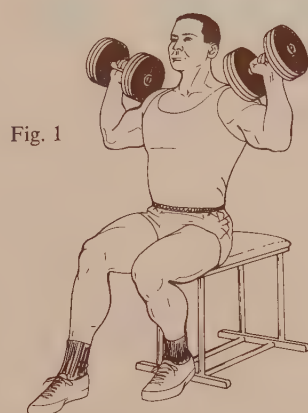


Fig. 1

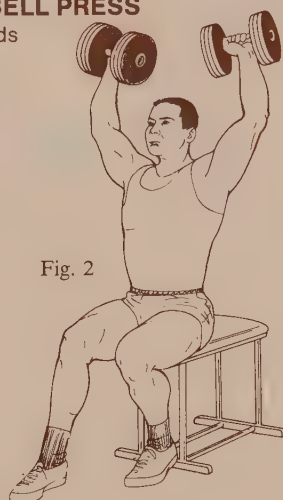


Fig. 2

SEATED BACK SUPPORTED PALMS OUT DUMBBELL PRESS

Front and outer deltoids

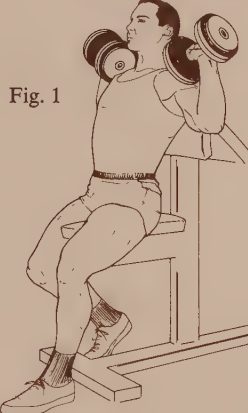


Fig. 1

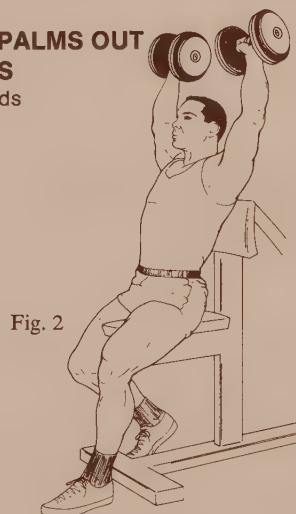


Fig. 2

STANDING PALMS OUT ALTERNATED DUMBBELL PRESS

Front and outer deltoids

**▲ Standing Palms Out Dumbbell Press**

Front and outer deltoids

Clean two dumbbells to shoulder height. Lock the legs and hips solidly. This will give you a solid platform from which to push. Keep the elbows out to the sides and have the hands so the thumbs are facing each other. Press the weights overhead to arm's length. Lower the weights to starting position keeping the elbows out. Inhale before the press and exhale when lowering the dumbbells.

▲ Seated Palms Out Dumbbell Press

Clean two dumbbells to shoulder height and then sit at the end of a bench with your back straight and your feet planted firmly on the floor. Keep the elbows out to the sides and have the hands so the thumbs are facing each other. Press the weights overhead to arm's length. Lower the weights to starting position, keeping the elbows out. Inhale before the press and exhale when lowering the dumbbells.

▲ Seated Back Supported Palms Out Dumbbell Press

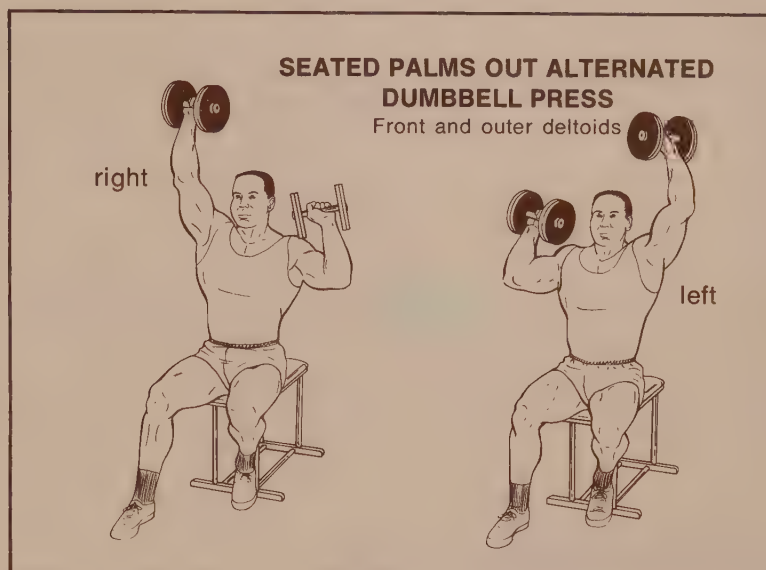
Clean two dumbbells to your shoulders and then sit on a bench or chair that will give support to your upper back. Keep your feet planted firmly on the floor. Keep the elbows out to the sides and have the hands so the thumbs are facing each other. Press the weights overhead to arm's length. Lower the weights to starting position keeping the elbows out. Inhale before the press and exhale when lowering the dumbbells.

▲ Standing Palms Out Alternated Dumbbell Press

Clean two dumbbells to shoulder height. Lock the legs and the hips solidly. Keep the elbows out slightly and have the palms of your hands facing out. Take a deep breath and press the right arm straight up over your right shoulder. As you commence to lower the right arm, begin to press the left arm to arm's length about the left shoulder, letting your air out as the left arm is raised. Be sure to keep the palms of the hands facing outward during the entire exercise.

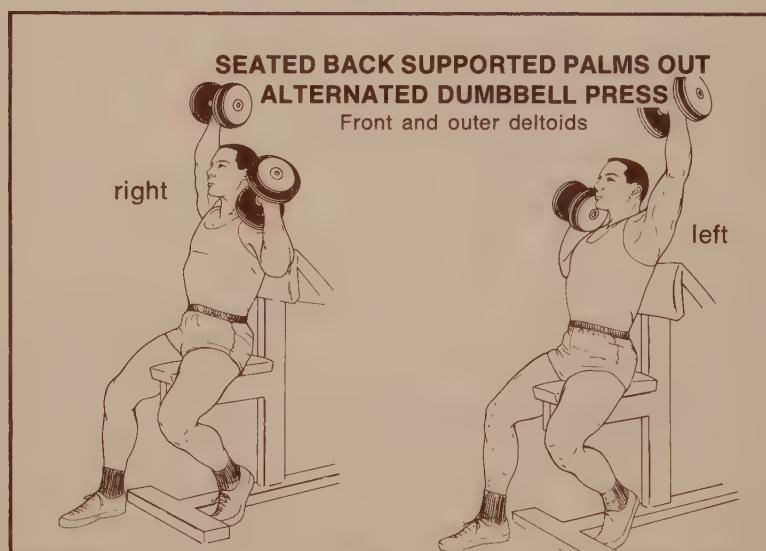
▲ Seated Palms Out Alternated Dumbbell Press

Clean two dumbbells and sit at the end of a bench. With the dumbbells at shoulder height, commence to press the dumbbell in the right hand to arm's length over head, keeping the elbow out to the side and have the hands so the thumbs are facing each other. Lower the dumbbell in the right hand back to starting position and then press the dumbbell in the left hand in the same manner. Maintain a rigid body position, doing all the work with the shoulders and arms. Do not lean from side to side while pressing. Inhale as you start to press the dumbbell and exhale as you are lowering the weight.



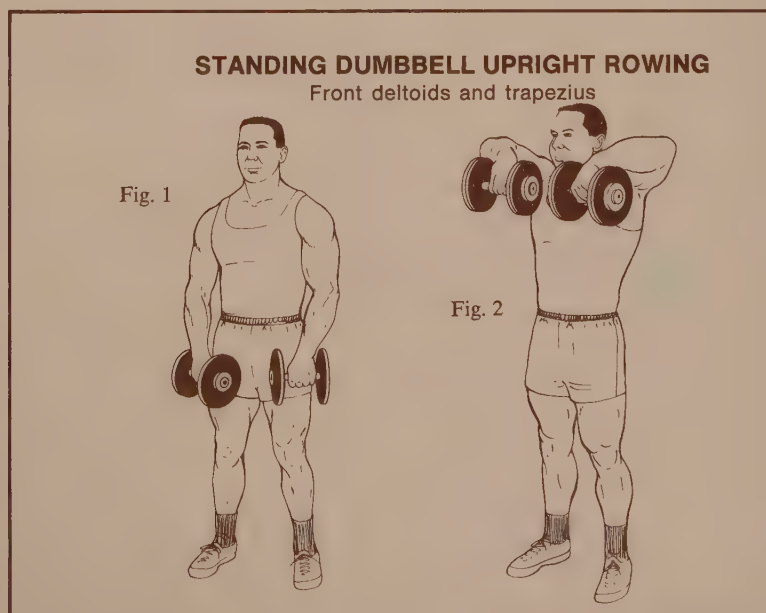
▲ Seated Back Support Palms Out Alternated Dumbbell Press

Clean two dumbbells to your shoulders and then sit on a bench or chair that will give support to your upper back. With the dumbbells at shoulder height, commence to press the dumbbell in the right hand to arm's length over head, keeping the elbow out to the side and have the hands so the thumbs are facing each other. Lower the dumbbell in the right hand back to starting position and then press the dumbbell in the left hand in the same manner. Maintain a rigid body position by keeping your back firmly against the back rest. Do all the work with your shoulders and arms. Do not lean from side to side while pressing. Inhale as you start to press the dumbbell and exhale as you lower the weight.



▲ Standing Dumbbell Upright Rowing

Use a dumbbell in each hand held at arm's length against your upper thighs. You should keep the dumbbells about ten inches apart during the exercise and have your thumbs facing each other. Inhale and pull the dumbbells straight up until they are nearly even with your chin. You must keep the elbows out to the sides and in the top position the elbows will be nearly as high as your ears. Keep the weights in close to the body and pause momentarily at the top. Concentrate as you lower the dumbbells to the starting position. Inhale up and exhale down.



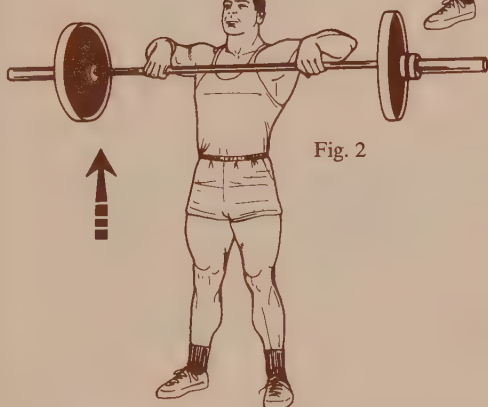
MEDIUM GRIP BARBELL UPRIGHT ROWING

Front deltoids and trapezius

Fig. 1



Fig. 2

**▲ Close Grip Barbell Upright Rowing**

Front deltoids and trapezius

Place your hands on a barbell with the palms down and use a grip that is about six inches apart. Keep the body erect and stationary and pull the weight straight up until it is nearly under the chin. You must keep the elbows out to the sides and in the top position the elbows will be nearly as high as your ears. Keep the barbell in close to the body and pause momentarily at the top. Concentrate as you lower the barbell to the starting position. Inhale up and exhale down.

▲ Medium Grip Barbell Upright Rowing

Place your hands on a barbell with the palms facing down and use a hand grip about eighteen inches apart. With the barbell at arm's length while you are standing erect and in a stationary position, pull the weight straight up until it is nearly under the chin. Keep the elbows out to the sides and in the top position the elbows are nearly as high as your ears. Keep the barbell in close to the body and pause momentarily at the top before letting the weight back to starting position. Inhale as you raise the bar and exhale as you lower the bar.

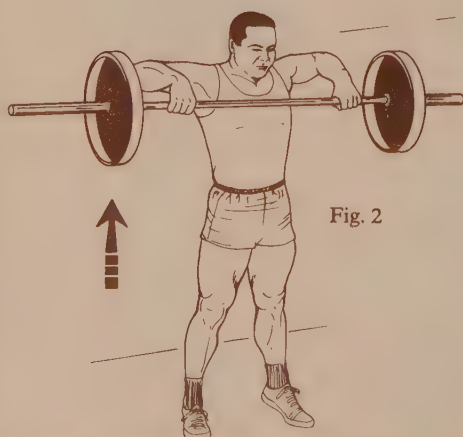
WIDE GRIP BARBELL UPRIGHT ROWING

Front deltoids and trapezius

Fig. 1



Fig. 2

**■ Wide Grip Barbell Upright Rowing**

Place your hands on a barbell with your palms facing down and using a grip that is about thirty-two to thirty-six inches apart. With the barbell at arm's length while you are standing erect and in a stationary position, pull the weight straight up until it is nearly under the chin. Keep the elbows out to the sides and in the top position the elbows are nearly as high as your ears. Keep the barbell in close to the body and pause momentarily at the top before letting the weight back to starting position. Inhale as you raise the bar and exhale as you lower the bar.

▲ Standing Close Grip Front Barbell Raise

Front deltoids

Use a grip on the barbell that is about four to six inches wide. Stand with your feet about sixteen inches apart and have the

legs and hips in a flexed position to help keep the back straight. With the barbell hanging at arm's length against your upper thighs, inhale and raise the bar straight up, not bending the elbows, until it is directly overhead. Exhale as you are lowering the bar back to starting position. Do not unlock the elbows during the full movement.

▲ Standing Medium Grip Front Barbell Raise

Use a shoulder width grip on a barbell. Stand with your feet about sixteen inches apart and have the legs and hips in a flexed position to help keep the back straight. With the barbell hanging at arm's length against your upper thighs, inhale and raise the bar straight up, not bending the elbows, until it is directly overhead. Exhale as you are lowering the bar back to starting position. Do not unlock the elbows during the full movement.

■ Standing Wide Grip Front Barbell Raise

Front deltoids

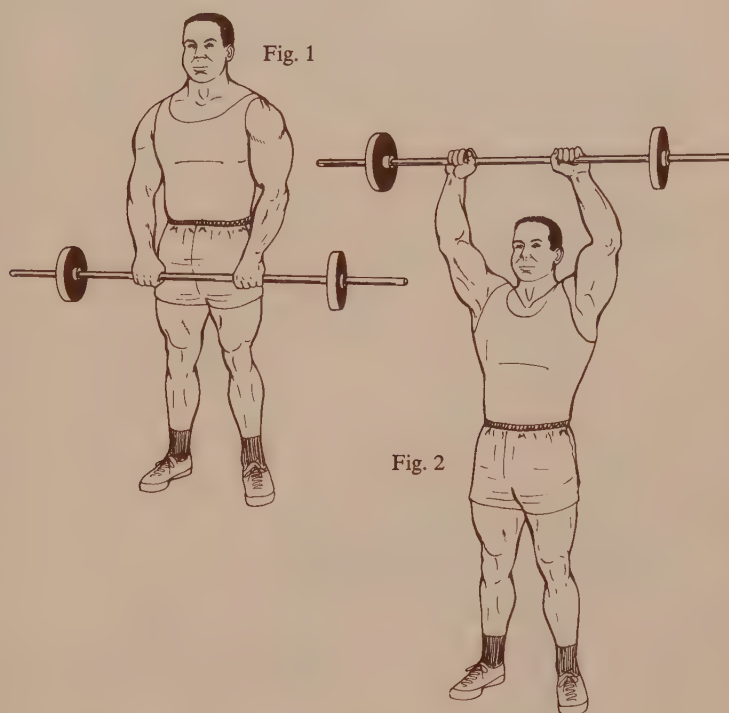
Use a grip on the barbell that is about thirty to thirty-six inches wide. Stand with your feet about sixteen inches apart and have the legs and hips in a flexed position to keep the back straight. With the barbell hanging at arm's length against your upper thighs, inhale and raise the bar straight up, not bending the elbows, until it is directly overhead. Exhale as you are lowering the bar back to starting position. Do not unlock the elbows during the full movement.

▲ Standing Close Grip Half Way Front Barbell Raise

Use a grip on a barbell that is about four to six inches wide. Stand with your feet about sixteen inches apart and have the legs and hips in a flexed position to help keep your back straight. With the barbell hanging at arm's length against your upper thighs, inhale and raise the bar straight out in a semicircular motion until it is just above parallel with your shoulders. Exhale as you are lowering the bar back to your upper thighs. Do not unlock your elbows during the entire exercise.

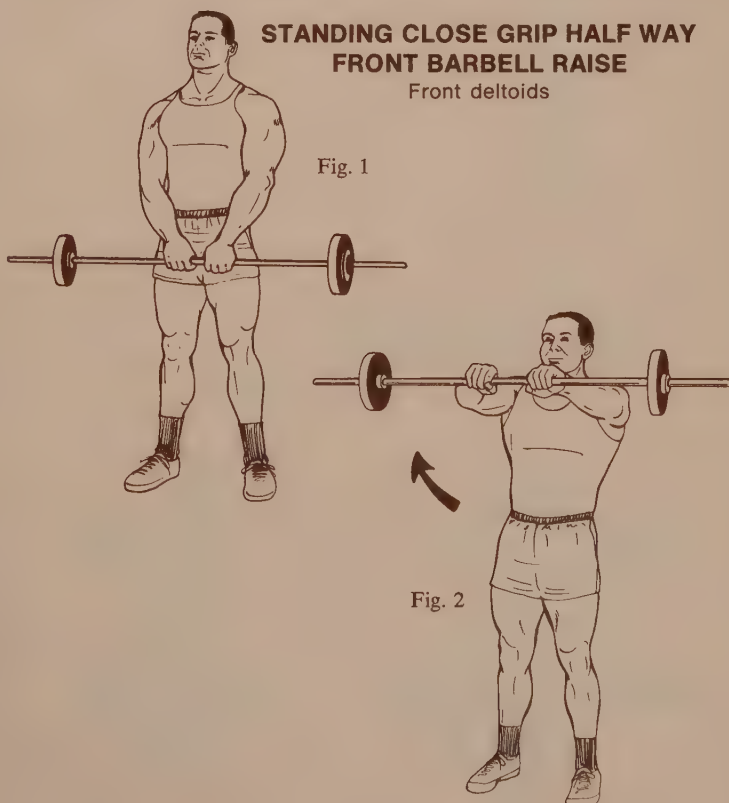
STANDING MEDIUM GRIP FRONT BARBELL RAISE

Front deltoids



STANDING CLOSE GRIP HALF WAY FRONT BARBELL RAISE

Front deltoids



STANDING MEDIUM GRIP HALF WAY FRONT BARBELL RAISE

Front deltoids

Fig. 1

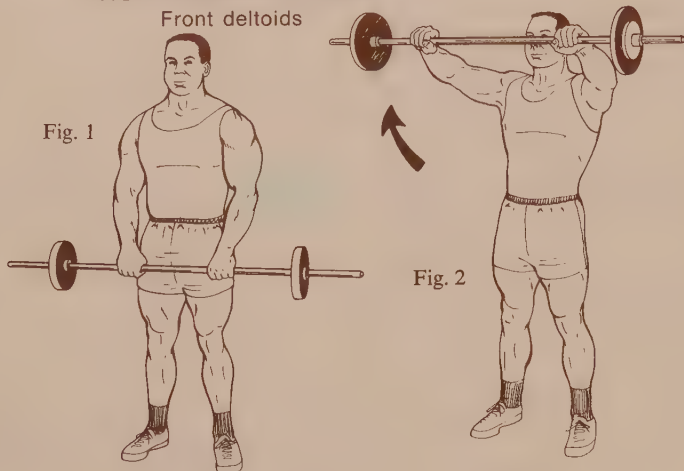


Fig. 2

STANDING WIDE GRIP HALF WAY FRONT BARBELL RAISE

Front deltoids

Fig. 1

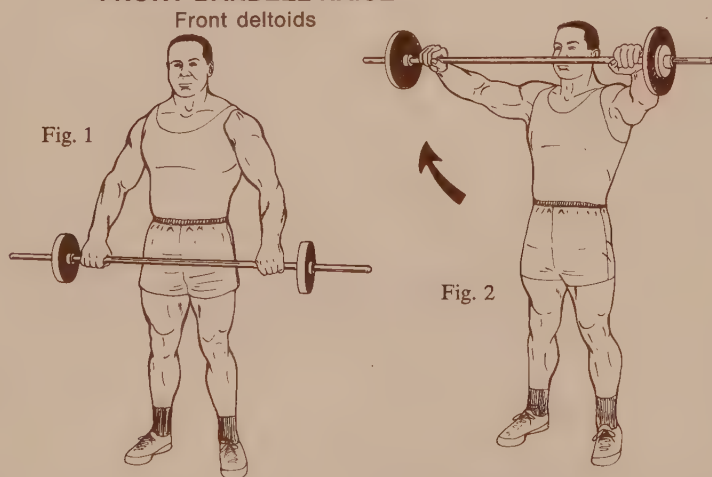


Fig. 2

INCLINE FACE FORWARD HALF WAY MEDIUM GRIP FRONT BARBELL RAISE

Rear deltoids

Fig. 1

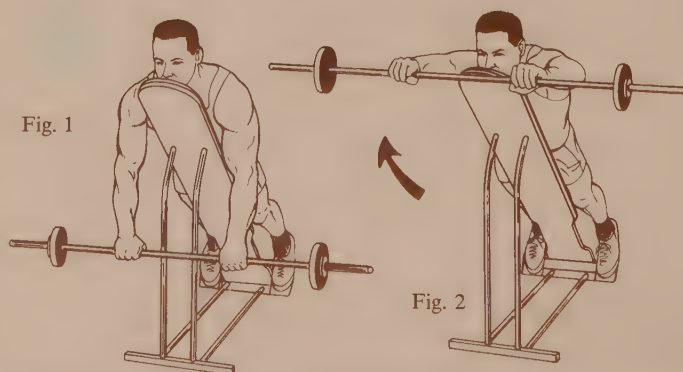


Fig. 2

▲ Standing Medium Grip Half Way Front Barbell Raise

Use a shoulder width grip on a barbell. Stand with your feet about sixteen inches apart and have the legs and hips in a flexed position to help keep the back straight. With the barbell hanging at arm's length against your upper thighs, inhale and raise the bar straight out in a semicircular motion until it is just above parallel with your shoulders. Exhale as you are lowering the bar back to your upper thighs. Do not unlock your elbows during the entire exercise.

■ Standing Wide Grip Half Way Front Barbell Raise

Use a grip on a barbell that is about thirty-two to thirty-six inches wide. Stand with your feet about sixteen inches apart and have the legs and hips in a flexed position to keep the back straight. With the barbell hanging at arm's length against your upper thighs, inhale and raise the bar straight out in a semicircular motion until it is just above parallel with your shoulders. Exhale as you are lowering the bar back to your upper thighs. Do not unlock your elbows during the entire exercise.

▲ Incline Face Forward Half Way Close Grip Front Barbell Raise

Rear deltoids

Lie face forward on an incline bench. Grasp a barbell with both hands, palms facing down, using a grip that is about eight inches apart. With your arms straight and your elbows locked out, inhale and raise the barbell up in a semicircular motion until it is about in line with your eyes. Lower the weight back to starting position and exhale.

▲ Incline Face Forward Half Way Medium Grip Front Barbell Raise

Lie face forward on an incline bench. Grasp a barbell with both hands, palms facing down, using a grip that is about twenty-four inches apart. With your arms straight and your elbows locked out, inhale and raise the barbell up in a semicircular motion until it is about in line with your eyes. Lower the weight back to starting position and exhale.

▲ Incline Face Forward Half Way Wide Grip Front Barbell Raise

Lie face forward on an incline bench. Grasp a barbell with both hands, palms facing down, using a grip that is about thirty-six inches apart. With your arms straight and your elbows locked out, inhale and raise the barbell up in a semicircular motion until it is about in line with your eyes. Lower the weight back to starting position and exhale.

▲ Incline Face Forward Close Grip Front Barbell Raise

Lie face forward on an incline bench. Grasp a barbell with both hands, palms facing down, using a grip that is about eight inches apart. With your arms straight and your elbows locked out, inhale and raise the barbell up in a semicircular motion until it is at arm's length overhead. Lower the weight back to starting position and exhale.

▲ Incline Face Forward Medium Grip Front Barbell Raise

Rear deltoids

Lie face forward on an incline bench. Grasp a barbell with both hands, palms facing down, using a grip that is about twenty-four inches apart. With your arms straight and your elbows locked out, inhale and raise the barbell up in a semicircular motion until it is at arm's length overhead. Lower the weight back to starting position and exhale.

▲ Incline Face Forward Wide Grip Front Barbell Raise

Rear deltoids

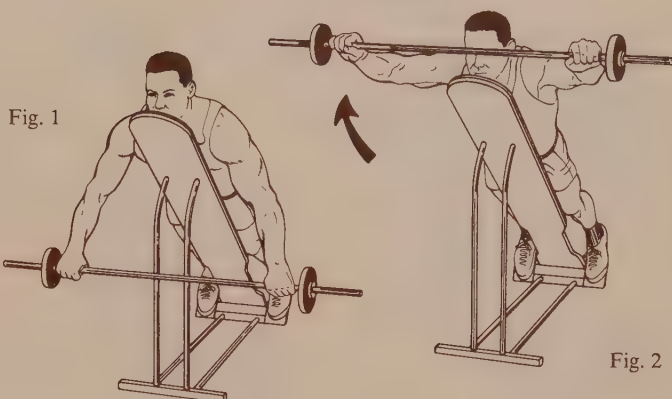
Lie face forward on an incline bench. Grasp a barbell with both hands, palms facing down, using a grip that is about thirty-six inches apart. With your arms straight and your elbows locked out, inhale and raise the barbell up in a semicircular motion until it is at arm's length overhead. Lower the weight back to starting position and exhale.

▲ Incline Half Way Close Grip Front Barbell Raise

Lie back on an incline bench with a barbell in your hands. Use a grip that is about six inches apart and have the barbell resting on your upper thighs. With your arms straight and elbows locked out, inhale and

INCLINE FACE FORWARD HALF WAY WIDE GRIP FRONT BARBELL RAISE

Rear deltoids



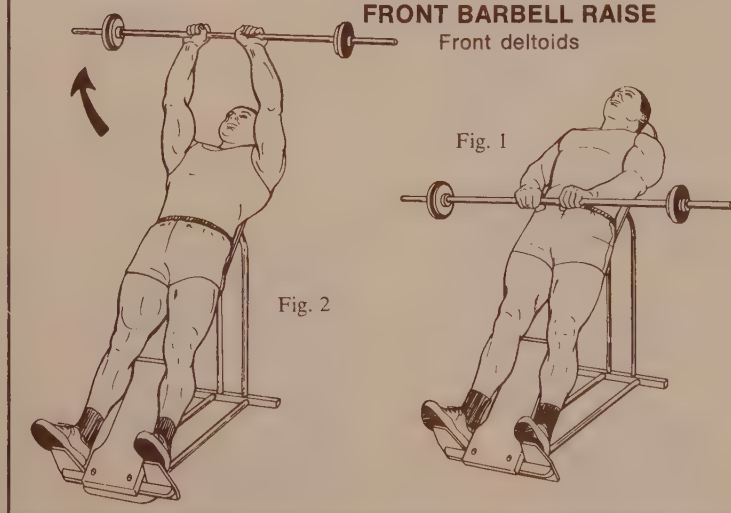
INCLINE FACE FORWARD CLOSE GRIP FRONT BARBELL RAISE

Rear deltoids



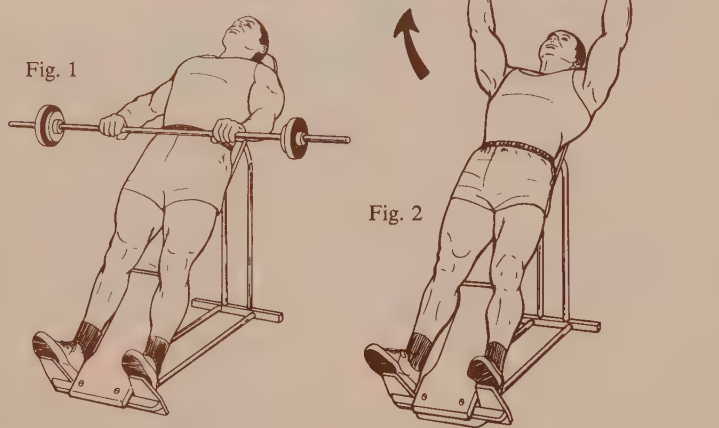
INCLINE HALF WAY CLOSE GRIP FRONT BARBELL RAISE

Front deltoids



INCLINE HALF WAY MEDIUM GRIP FRONT BARBELL RAISE

Front deltoids



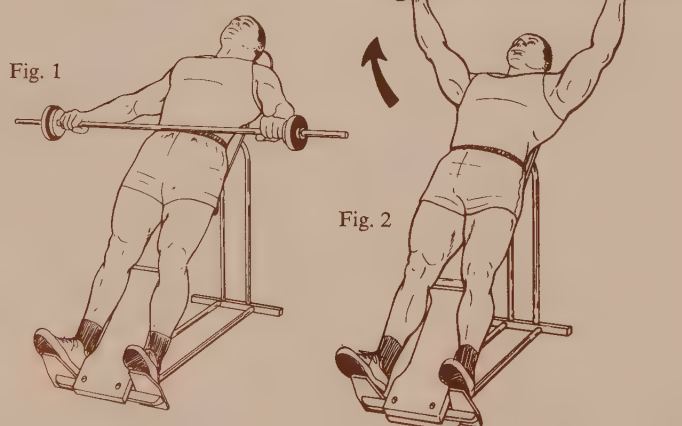
raise the barbell in a semicircular motion until it is about in line with the top of your head. Hold the weight there for a moment and then lower it back to the upper thigh and exhale.

▲ Incline Half Way Medium Grip Front Barbell Raise

Lie back on an incline bench with a barbell in your hands. Use a grip that is about eighteen inches apart and have the barbell resting on your upper thighs. With your arms straight and elbows locked out, inhale and raise the barbell up in a semicircular motion until it is about in line with the top of your head. Hold the weight there for a moment and then lower it back to the upper thighs and exhale.

INCLINE HALF WAY WIDE GRIP FRONT BARBELL RAISE

Front deltoids

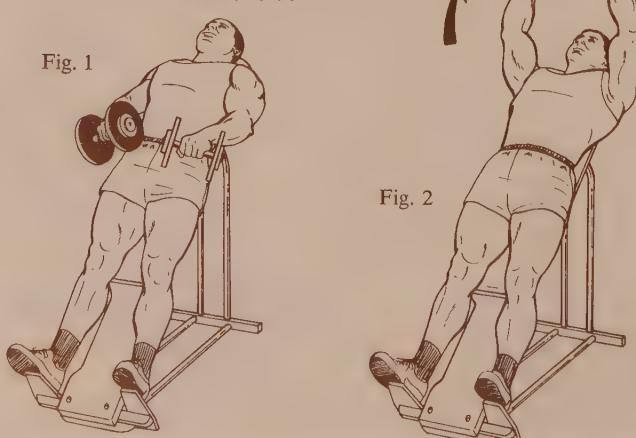


▲ Incline Half Way Wide Grip Front Barbell Raise

Lie back on an incline bench with a barbell in your hands. Use a grip that is about thirty-two inches apart and have the barbell resting on your upper thighs. With your arms straight and elbows locked out, inhale and raise the barbell up in a semicircular motion until it is about in line with the top of your head. Hold the weight there for a moment and then lower it back to the upper thighs and exhale.

INCLINE HALF WAY STRAIGHT ARM FRONT DELTOID RAISE

Front deltoids



▲ Incline Half Way Straight Arm Front Deltoid Raise

Hold a dumbbell in each hand and lie back on an incline bench. With your arms straight and elbows locked out, rest the dumbbells on your upper thighs with the palms of your hands facing down. Inhale and raise the dumbbells up in a semicircular motion until they are about in line with the top of your head. Hold the weights there for a moment and then lower them back to the upper thighs and exhale.

▲ Incline Half Way Alternated Straight Arm Front Deltoid Raise

Front deltoids

Hold a dumbbell in each hand and lie back on an incline bench. With your arms straight and elbows locked out, rest the dumbbells on your upper thighs with the palms of your hands facing down. Inhale

and raise the dumbbell in your right hand up in a semicircular motion until it is about in line with the top of your head. Hold the weight there for a moment and then lower it back to the upper thigh and exhale. Now raise the dumbbell in your left hand in the same semicircular motion to the top of your head and lower it back to starting position. A repetition to the right and left is considered one repetition.

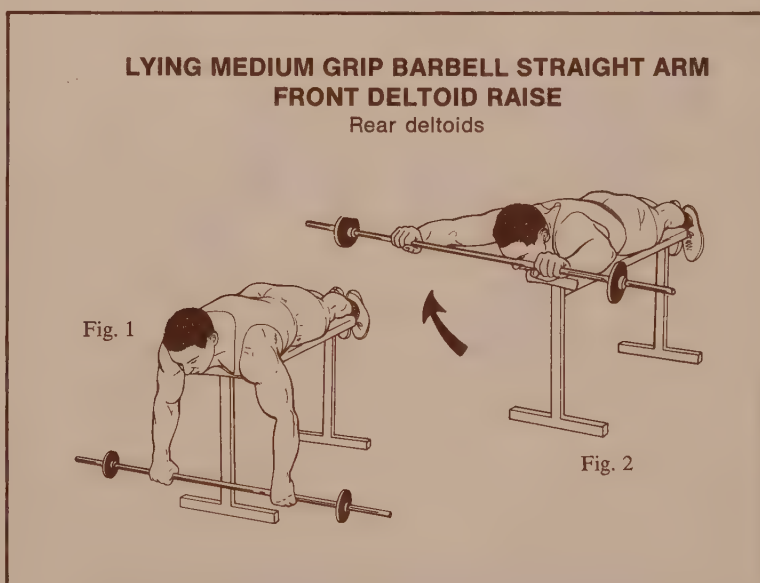
■ Lying Close Grip Barbell Straight Arm Front Deltoid Raise

Lie face down on a high flat bench that will enable you to hold a light barbell with your hands hanging from your shoulders and not touching the floor. Keep your head over the end of the bench and up. With your hand grip about six inches apart, arms straight, and elbows locked out, inhale and raise the barbell up in a semicircular motion until it is parallel with the floor. Lower the weight back to starting position and exhale. Keep the palms of your hands facing down during the exercise.



■ Lying Medium Grip Barbell Straight Arm Front Deltoid Raise

Lie face down on a high flat bench that will enable you to hold a light barbell with your hands hanging from your shoulders and not touching the floor. Keep your head over the end of the bench and up. With your hand grip about twenty-four inches apart, arms straight, and elbows locked out, inhale and raise the barbell up in a semicircular motion until it is parallel with the floor. Lower the weight back to starting position and exhale. Keep your palms facing down during the exercise.



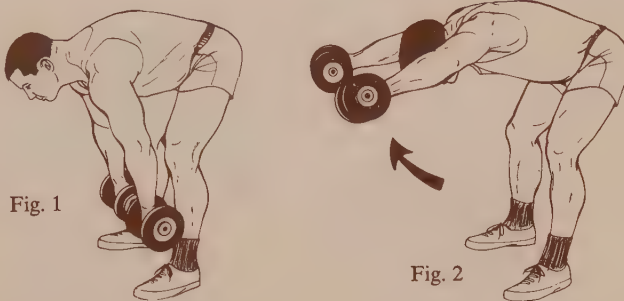
★ Lying Wide Grip Barbell Straight Arm Front Deltoid Raise

Lie face down on a high flat bench that will enable you to hold a light barbell with your hands hanging from your shoulders and not touching the floor. Keep your head over the end of the bench and up. With your hand grip about thirty-six inches apart, arms straight, and elbows locked out, inhale and raise the barbell up in a semicircular motion until it is parallel with the floor. Lower the weight back to starting position and exhale. Keep the palms of your hands facing down during the exercise.



BENT OVER STRAIGHT ARM DUMBBELL FRONT RAISE

Rear deltoids



■ Bent Over Straight Arm Dumbbell Front Raise

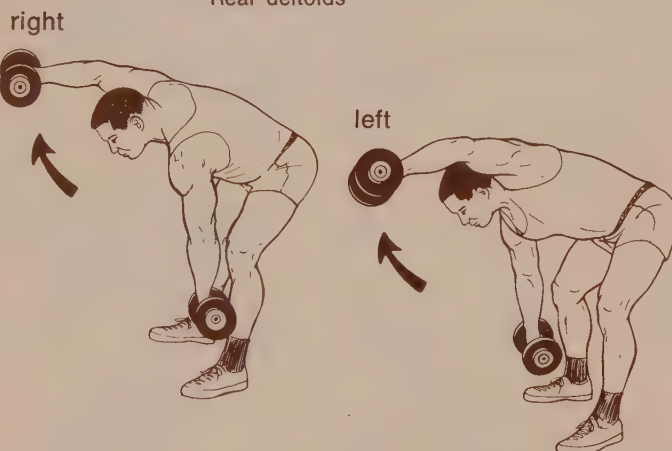
Hold a dumbbell in each hand with your palms facing to the rear. Bend at the waist until your back is parallel with the floor and keep a slight bend to your knees. With the dumbbells at arm's length below your shoulders, keep your elbows locked out as you raise the weights up in a semi-circular motion until they are in line with the top of your head. Lower the dumbbells back to starting position in the same semi-circular motion and exhale. Be sure your back remains parallel during the exercise.

■ Bent Over Alternated Straight Arm Dumbbell Front Raise

Hold a dumbbell in each hand with your palms facing to the rear. Bend at the waist until your back is parallel with the floor and keep a slight bend to your knees. With the dumbbells at arm's length below your shoulders, keep your elbows locked out as you raise the weight in your right hand up in a semicircular motion until it is in line with the top of your head. As you start to lower your right arm back to starting position, commence to raise your left hand in a similar semicircular motion until it is in line with the top of your head. As your right arm is coming down to starting position your left arm is being raised. Inhale as you pull with your right arm and exhale as you pull with your left arm.

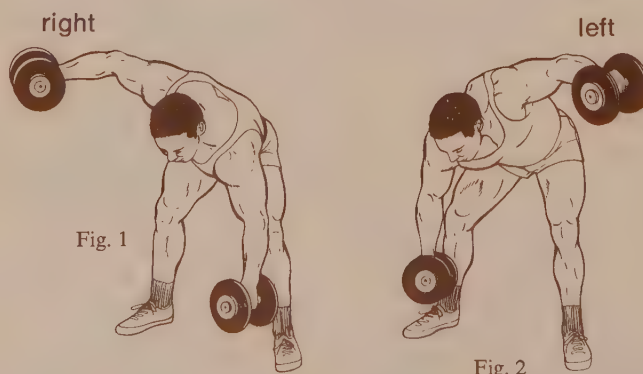
BENT OVER ALTERNATED STRAIGHT ARM DUMBBELL FRONT RAISE

Rear deltoids



BENT OVER ALTERNATED DUMBBELL REAR DELTOID RAISE

Rear deltoids



■ Bent Over Dumbbell Rear Deltoid Raise

Rear deltoids

Keep the arms held in the position as shown in illustration #1. Lock the elbows and keep the arms straight. Bring the dumbbells to position shown in illustration #2, hold for a short period and contract the rear deltoid muscles. Do not swing the dumbbells up, keep the body rigid and do the work with the rear deltoids and muscles of the upper back. Be sure to bring the dumbbells straight out to the sides and make an effort to keep the hands forward in line with your ears at the top position. Inhale up, exhale down.

■ Bent Over Alternated Dumbbell Rear Deltoid Raise

Keep the arms held in the position as shown in illustration #1. Lock the elbows and keep the arms straight. Bring the dumbbell in your right hand to the position shown in illustration #2, hold for a short period and

contract the rear deltoid muscle. Do not swing the dumbbell up, keep your body rigid and do the work with your rear deltoid and muscles of your upper back. Be sure to bring the dumbbell straight out to the side and make an effort to keep your hand forward in line with your right ear at the top position. Lower back to starting position and then repeat the movement with your left arm. Go from the right arm to the left arm until the prescribed number of repetitions are completed. Inhale up, exhale down.

■ Bent Over One Arm Rear Deltoid Raise

Hold a dumbbell in your right hand and bend over. Keep your arm in the position shown in illustration #1. Lock your elbow and keep the arm straight. Bring the dumbbell to the position shown in illustration #2, hold for a short period and contract the rear deltoid muscle. Do not swing the dumbbell up, keep your body rigid and do the work with your rear deltoid and muscles of your upper back. Be sure to bring the dumbbell straight out to the side and make an effort to keep your hand forward in line with your right ear at the top position. Lower the dumbbell back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the dumbbell to the left hand and repeat the same number of repetitions.

■ Bent Over Head Supported Dumbbell Rear Deltoid Raise

Bend over and support your forehead on a comfortable object that is not quite waist high. Lock the elbows and keep the arms straight. Bring the dumbbells to the position shown in illustration #2, hold for a short period and contract the rear deltoid muscles. Do not swing the dumbbells up, keep the body rigid and head resting on the object. Do the work with the rear deltoids and muscles of the upper back. Be sure to bring the dumbbells straight out to the sides and make an effort to keep the hands forward in line with your ears at the top position. Inhale up, exhale down.

■ Bent Over Head Supported Alternated Dumbbell Rear Deltoid Raise

Bend over and support your forehead on a comfortable object that is not quite waist high. Lock your elbows and keep your arms straight. Bring the dumbbell in your right

BENT OVER ONE ARM REAR DELTOID RAISE

Rear deltoids

Fig. 1

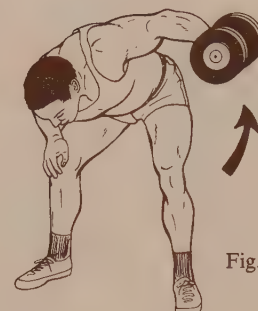


Fig. 2

BENT OVER HEAD SUPPORTED DUMBBELL REAR DELTOID RAISE

Rear deltoids

Fig. 1

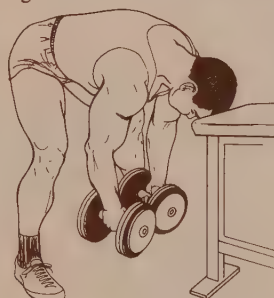


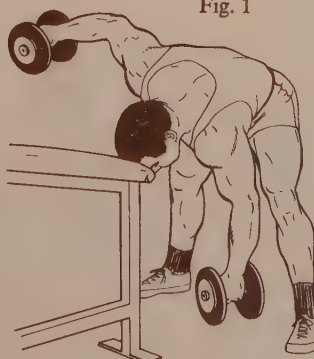
Fig. 2

BENT OVER HEAD SUPPORTED ALTERNATED DUMBBELL REAR DELTOID RAISE

Rear deltoids

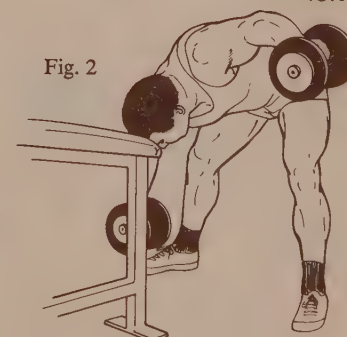
right

Fig. 1



left

Fig. 2



BENT OVER HEAD SUPPORTED ONE ARM DUMBBELL REAR DELTOID RAISE

Rear deltoids

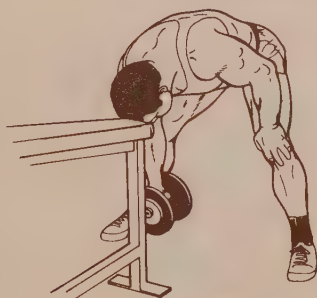


Fig. 1



Fig. 2

hand to the position shown in illustration #2, hold for a short period and contract the rear deltoid muscles. Do not swing the dumbbell up, keep the body rigid and head resting on the object. Do the work with your rear deltoid and muscles of your upper back. Be sure to bring the dumbbell straight out to the side and make an effort to keep your hand forward in line with your right ear at the top position. Lower the weight back to starting position and then repeat the same movement with your left arm. Inhale up and exhale down.

■ Bent Over Head Supported One Arm Dumbbell Rear Deltoid Raise

Hold a dumbbell in your right hand and bend over and support your forehead on a comfortable object that is not quite waist high. Lock your elbow and keep your arm straight. Bring the dumbbell to the position shown in illustration #2, hold a short period and contract the rear deltoid muscle. Do not swing the dumbbell up, keep your body rigid and head resting on the object. Do the work with your rear deltoid and muscles of your upper back. Be sure to bring the dumbbell straight out to the side and make an effort to keep your hand forward in line with your right ear at the top position. Lower the weight back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change the dumbbell to the left hand and repeat the same number of repetitions.

SEATED BENT OVER REAR DELTOID RAISE

Rear deltoids

Fig. 1

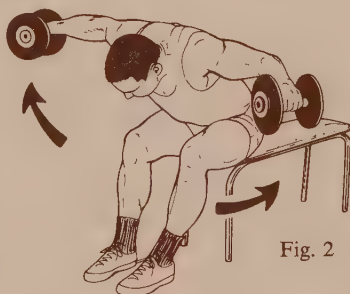
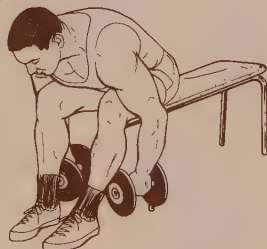
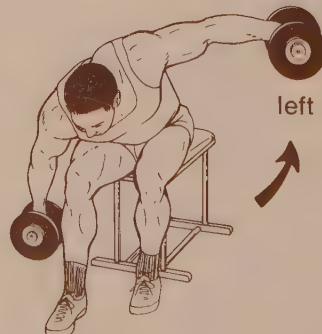
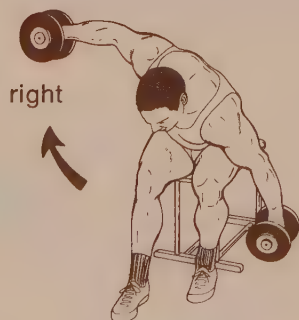


Fig. 2

SEATED BENT OVER ALTERNATED REAR DELTOID RAISE

Rear deltoids



▲ Seated Bent Over Rear Deltoid Raise

Hold a dumbbell in each hand and sit at the end of a flat bench with your feet planted firmly on the floor and fairly close together. Bend forward at the waist until your chest nearly touches your upper thighs. Place the dumbbells between your lower legs and the bench. With your arms as straight as possible and your elbows locked out, inhale and raise both dumbbells out to each side in a semicircular motion until they are parallel with the floor. Lower them back to starting position and exhale. Keep your arms as straight as possible as you raise the dumbbells and at the top position both hands should be about in line with your ears.

▲ Seated Bent Over Alternated Rear Deltoid Raise

Hold a dumbbell in each hand and sit at the end of a flat bench with your feet planted firmly on the floor and fairly close together.

Bend forward at the waist until your chest nearly touches your upper thighs. Place the dumbbells between your lower legs and the bench. With your arms as straight as possible and your elbows locked out, inhale and raise your right arm out to the side in a semicircular motion until it is parallel with the floor. Lower it back to starting position and exhale. Then raise the left arm in the same manner and continue repeating the right and then the left for the prescribed number of repetitions. Keep your arms as straight as possible as you raise the dumbbells and at the top position your hands should be in line with your ears.

■ Incline Face Forward Front Dumbbell Raise

Lie face forward on an incline bench. Grasp a dumbbell with each hand, palms facing down. With your arms straight and your elbows locked out, inhale and raise the dumbbells up in a semicircular motion until they are at arm's length overhead. Lower the weights back to starting position and exhale.

▲ SEATED BACK SUPPORTED FRONT DUMBBELL RAISE

Front deltoids

■ Incline Face Forward Alternated Front Dumbbell Raise

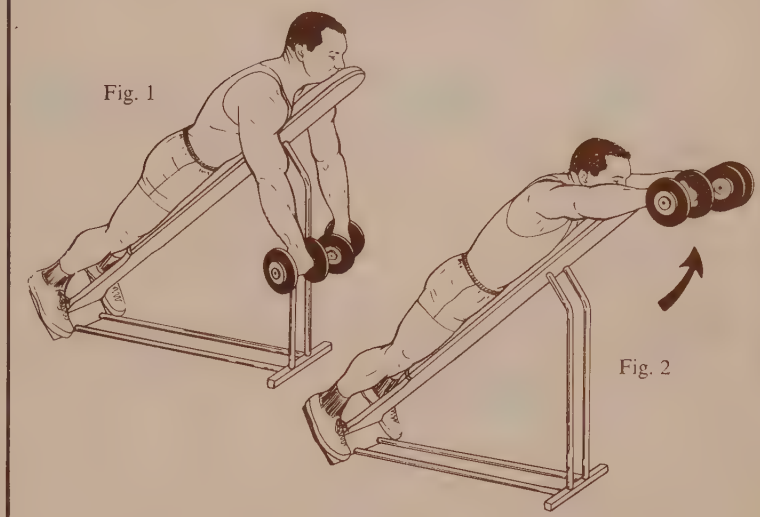
Lie face forward on an incline bench. Grasp a dumbbell with each hand, palms facing down. With your arms straight and your elbows locked out, inhale and raise your right arm up in a semicircular motion until it is at arm's length overhead. As you commence to lower the right arm, proceed to raise the left arm using the similar semicircular motion. As the right goes down the left will come up. Inhale as you raise the right arm and exhale as you raise the left arm.

▲ Lying Dumbbell Straight Arm Front Deltoid Raise

Lie face down on a high flat bench that will enable you to hold a dumbbell in each hand, hanging from your shoulders down and not touching the floor. Keep your head over the end of the bench and up. With your arms straight and elbows locked out, inhale and raise both dumbbells straight up in a semicircular motion until they are parallel with the floor. Lower the weights back to starting position and exhale. Keep the palms of your hands facing down during the exercise.

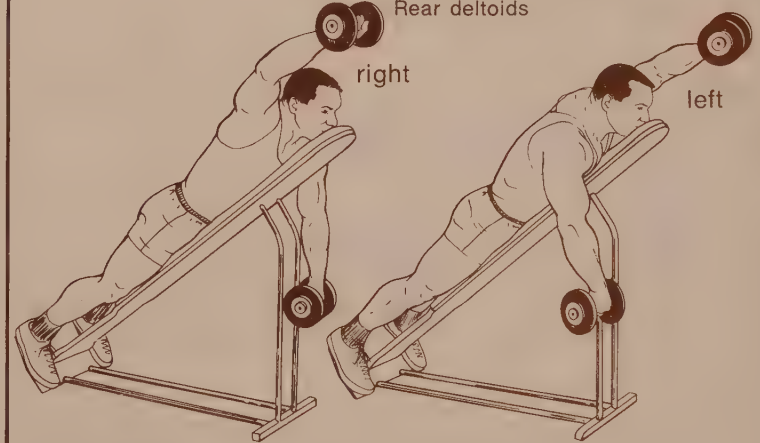
INCLINE FACE FORWARD FRONT DUMBBELL RAISE

Rear deltoids



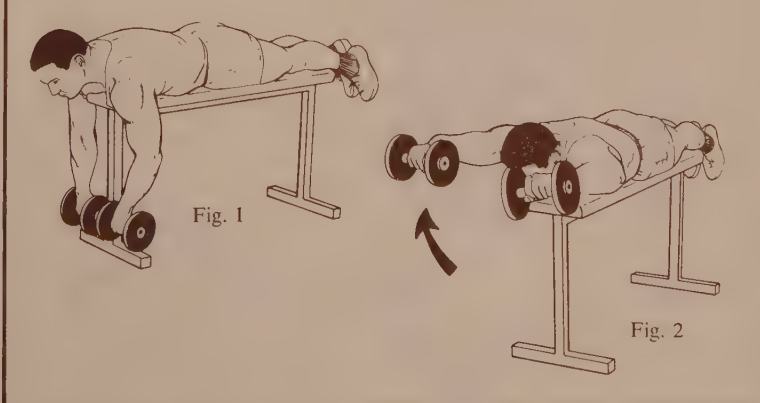
INCLINE FACE FORWARD ALTERNATED FRONT DUMBBELL RAISE

Rear deltoids



LYING DUMBBELL STRAIGHT ARM FRONT DELTOID RAISE

Rear deltoids



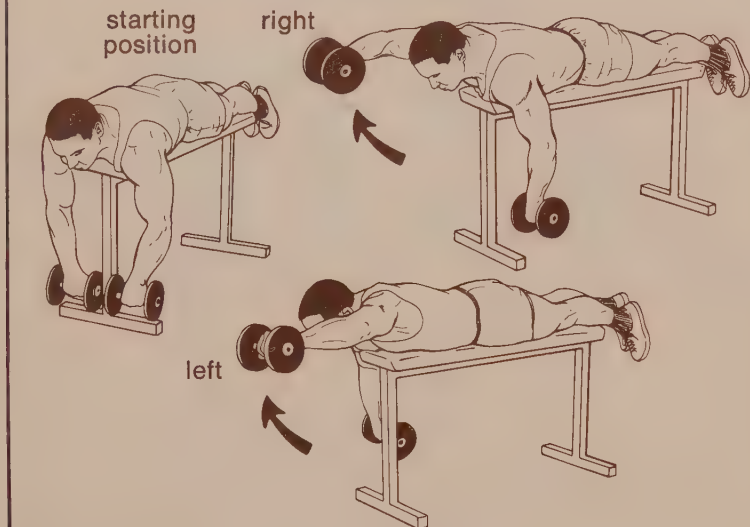
LYING DUMBBELL ALTERNATED STRAIGHT ARM FRONT DELTOID RAISE

Rear deltoids

starting position

right

left



▲ Lying Dumbbell Alternated Straight Arm Front Deltoid Raise

Lie face down on a high flat bench that will enable you to hold a dumbbell in each hand, hanging from your shoulders down and not touching the floor. Keep your head over the end of the bench and up. With your arms straight and elbows locked out, inhale and raise your right arm straight up in a semicircular motion until it is parallel with the floor. As you commence to lower your right arm, start to raise your left arm in the same similar semicircular motion until it is parallel to the floor and your right arm is back to starting position. Inhale as your right arm is raised and exhale as your left arms is raised.

■ Lying Rear Deltoid Raise

Lie face down on a fairly tall flat bench with a dumbbell in each hand, palms facing each other. Keep your elbows locked and the arms as straight as possible as they hang straight down. Raise the dumbbells up in a semicircular motion to shoulder height. Concentrate on having your hands in line with your ears at the top of the exercise. Inhale as you raise the dumbbells and exhale as you lower them to starting position.

■ Incline Rear Deltoid Raise

Rear deltoids

Lie face down on an incline bench with a dumbbell in each hand, palms facing each other. Keep your elbows locked and the arms as straight as possible while raising the dumbbells up in a semicircular motion to shoulder height. Concentrate on having your hands in line with your ears at the top of the exercise. Inhale as you raise the dumbbells and exhale as you lower them to starting position.

LYING REAR DELTOID RAISE

Rear deltoids

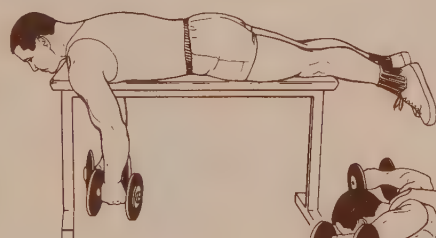


Fig. 1

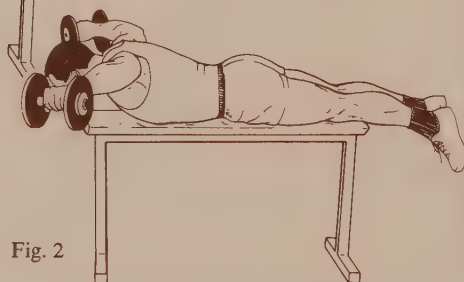


Fig. 2

LYING ON FLOOR ACROSS BODY REAR DELTOID RAISE

Rear deltoids

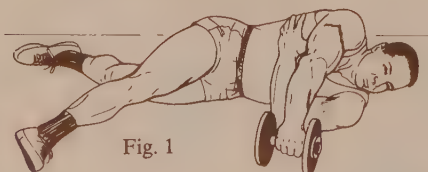


Fig. 1

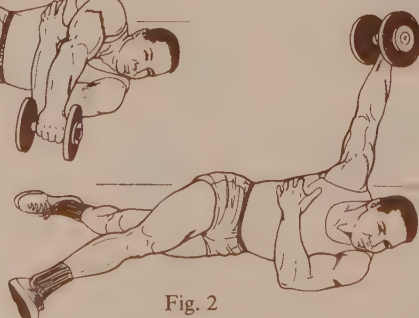


Fig. 2

▲ Lying on Floor Across Body Rear Deltoid Raise

Lie on your left side with your legs apart to help balance your upper body during the exercise. Place a dumbbell to the side of you on the floor. Grasp the weight with your right hand. With your arm straight and in line with your right shoulder, inhale and raise the dumbbell up in a semicircular motion until it is in a vertical position above the right shoulder. From here lower the weight back to starting position still keeping the dumbbell in the same line as the

shoulder. Exhale as the weight touches the floor. The palm of your hand will be facing down as you commence the exercise.

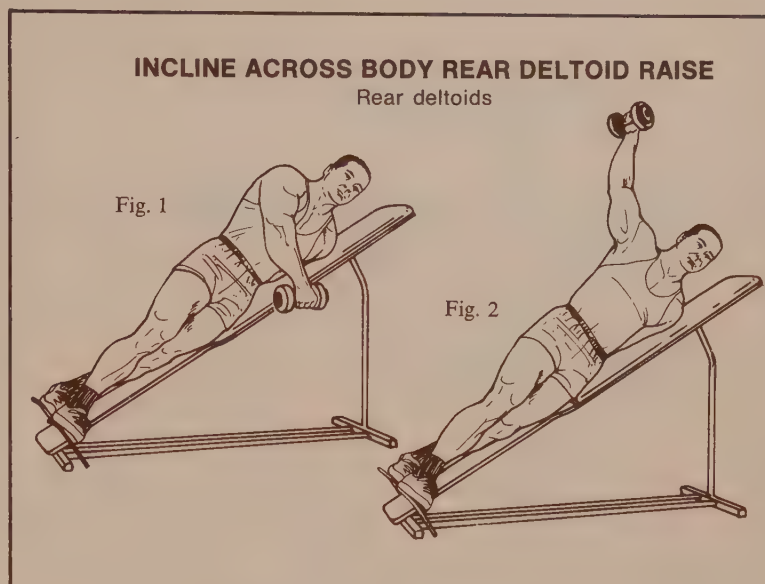
▲ Lying on Bench Across Body Rear Deltoid Raise

Rear deltoids

Lie on your left side on a bench with your right arm hanging downward towards the floor grasping a dumbbell. With your arm straight in line with your right shoulder, inhale and raise the dumbbell up in a semi-circular motion until it is in a vertical position above the shoulder. From here lower the weight back to starting position still keeping the dumbbell in the same line with the shoulder. The palm of the hand will be facing in as you commence the exercise.

INCLINE ACROSS BODY REAR DELTOID RAISE

Rear deltoids



■ Incline Across Body Rear Deltoid Raise

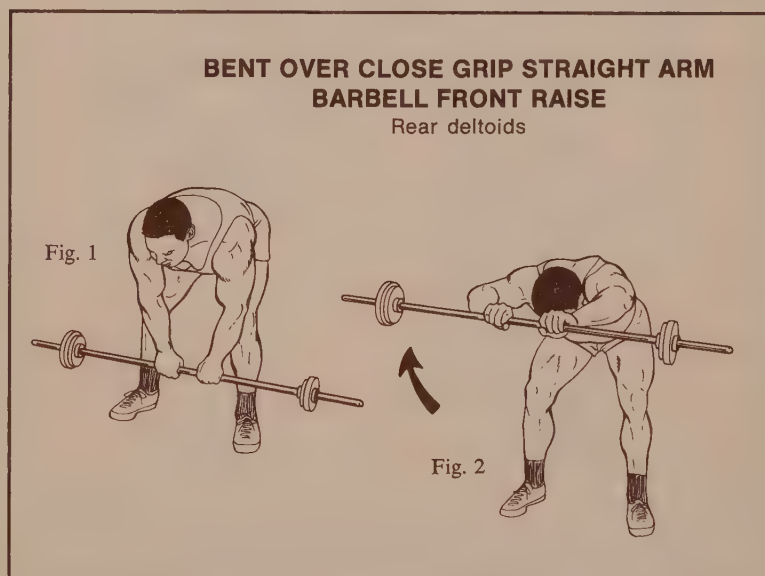
Assume the position on an incline bench as shown in illustration #1. Hold the dumbbell in your right hand, knuckles facing upward. Raise the dumbbell up in a semi-circular motion until it stops at arm's length above your shoulder. Do not turn the wrist and keep the arm straight. Inhale as you raise the dumbbell and exhale as it is lowered to the starting position. Exercise the right arm and then the left.

■ Bent Over Close Grip Straight Arm Barbell Front Raise

Using a palms down grip on a barbell about twelve inches apart, bend at the waist until your back is parallel with the floor and keep a slight bend to your knees. With the barbell at arm's length below your shoulders, keep your elbows locked out as you raise the bar up in a semicircular motion until it is even with the top of your head. Lower the weight back to starting position in the same semicircular motion and exhale. Be sure your back remains parallel during the exercise.

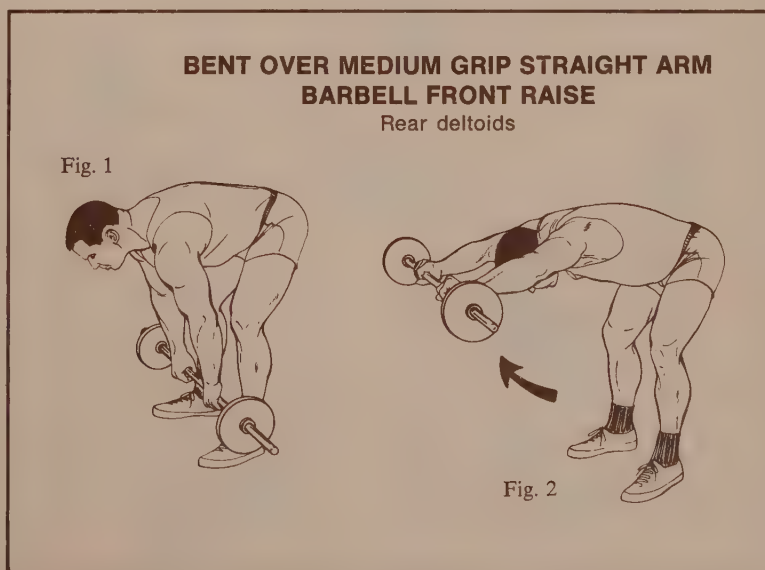
BENT OVER CLOSE GRIP STRAIGHT ARM BARBELL FRONT RAISE

Rear deltoids



BENT OVER MEDIUM GRIP STRAIGHT ARM BARBELL FRONT RAISE

Rear deltoids



■ Bent Over Medium Grip Straight Arm Barbell Front Raise

Using a palms down grip on a barbell about twenty-four inches apart, bend at the waist until your back is parallel with the floor and keep a slight bend to your knees. With the barbell at arm's length below your shoulders, keep your elbows locked out as you raise the bar up in a semicircular motion and exhale. Be sure your back remains parallel during the exercise.

BENT OVER WIDE GRIP STRAIGHT ARM BARBELL FRONT RAISE

Rear deltoids

Fig. 1

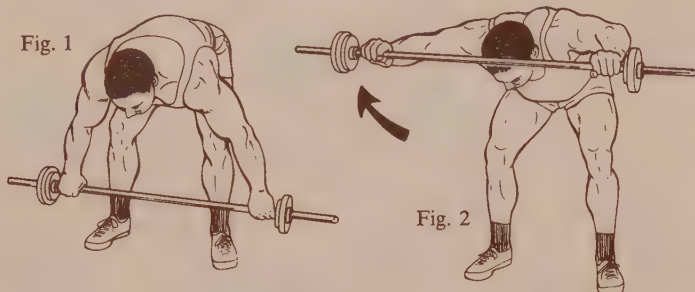


Fig. 2

★ Bent Over Wide Grip Straight Arm Barbell Front Raise

Using a palms down grip on a barbell about thirty-two inches apart, bend at the waist until your back is parallel with the floor and keep a slight bend to your knees. With the barbell at arm's length below your shoulders, keep your elbows locked out as you raise the bar up in a semicircular motion until it is even with the top of your head. Lower the weight back to starting position in the same semicircular motion and exhale. Be sure your back remains parallel during the exercise.

SEATED FACING OUT PRESS ON UNIVERSAL MACHINE

Front and outer deltoids

Fig. 1

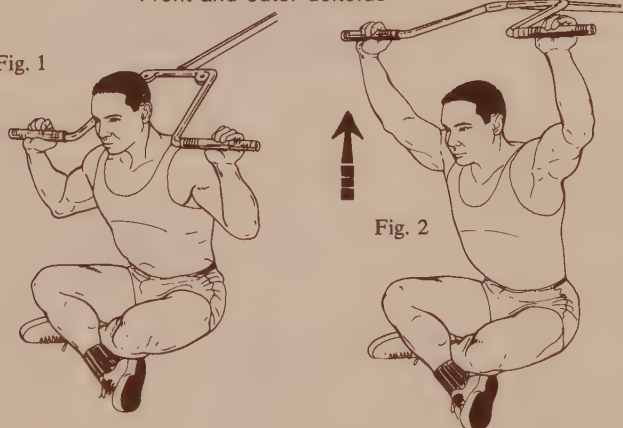


Fig. 2

▲ Seated Facing Out Press on Universal Machine

Sit on the floor under the bench press portion of a Universal machine, facing away from the machine. Cross your legs and grasp the bar used for bench presses. Position your upper body under the bar as it would be like having a barbell on the back of your shoulders. Take a deep breath and press the bar directly up behind your head to arm's length. Lower the bar to starting position and exhale.

▲ Seated Facing in Press on Universal Machine

Front and outer deltoids

Sit on the floor under the bench press portion of a Universal machine, facing into the machine. Position your upper body under the bar as if you were holding a barbell on the upper chest for a military press. Grasp the bar and press to arm's length in front of your head. Lower it to starting position and exhale.

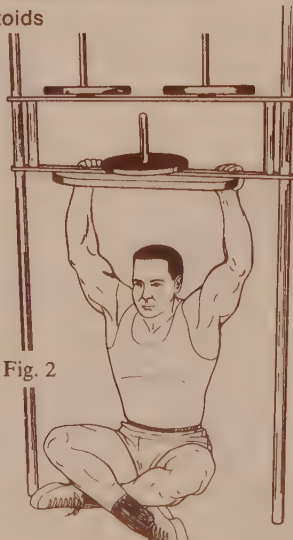
SEATED PRESS UNDER LEG PRESS MACHINE

Front and outer deltoids

Fig. 1



Fig. 2



■ Seated Press Under Leg Press Machine

Sit under a leg press machine using a small pad if necessary to get the right height so the wooden pad where your feet would normally rest is in line with your shoulders. Take a deep breath and press the pad directly overhead. When you have reached arm's length, lower the pad back to the top of your chest so your chest and arms are supporting it and then take another deep breath and press the pad again. You are inhaling as you are pressing the pad, exhaling as you are lowering it.

▲ Standing Barbell Press in Front and Behind Neck

Front and outer deltoids

Clean a barbell to the front of your shoulders. Lock the legs and hips and press the barbell to arm's length over head. Then lower it behind your head to your upper back. Press the barbell back to arm's length overhead and lower it to the front. Inhale as you are pressing and exhale as you are lowering the weight. Front and back should be considered one repetition.

■ Seated Back Supported Barbell Press in Front and Behind Neck

Front and outer deltoids

Clean a barbell to the front of your shoulders and sit on a bench or chair that will give support to your upper back. With your feet planted firmly on the floor and your back up against the support, press the barbell to arm's length overhead and then lower it behind your head to your upper back. Then press the barbell back to arm's length overhead and lower it to the front. Inhale as you are pressing and exhale as you are lowering the weight. Front and back should be considered one repetition.

■ Seated Barbell Press in Front and Behind Neck

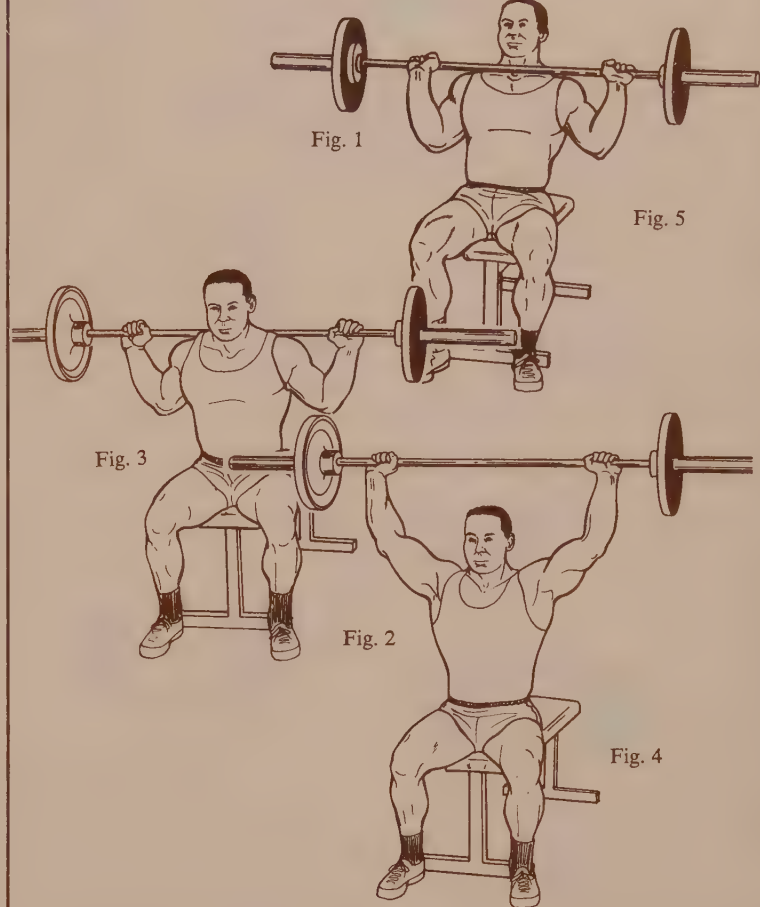
Clean a barbell to the front of your shoulders and sit at the end of a bench. Press the barbell to arm's length overhead and then lower it behind your head to your upper back. Then press the barbell back to arm's length overhead and lower it to the front. Inhale as you are pressing and exhale as you are lowering the weight. Front and back should be considered one repetition.

■ Standing Barbell Press Behind Neck

Stand with your feet spaced a comfortable distance apart with a barbell placed on your upper back. Use a grip on the bar that is about four to six inches wider than your shoulders. Press the barbell overhead and exhale as you lower the bar to the back of your shoulders. Maintain a solid foundation by keeping the legs straight and the hips flexed. Pause at the shoulders on each repetition before pressing the barbell overhead. Make a full movement of the exercise by touching the barbell to the shoulders each time it is lowered and locking the elbows each time it is pressed overhead.

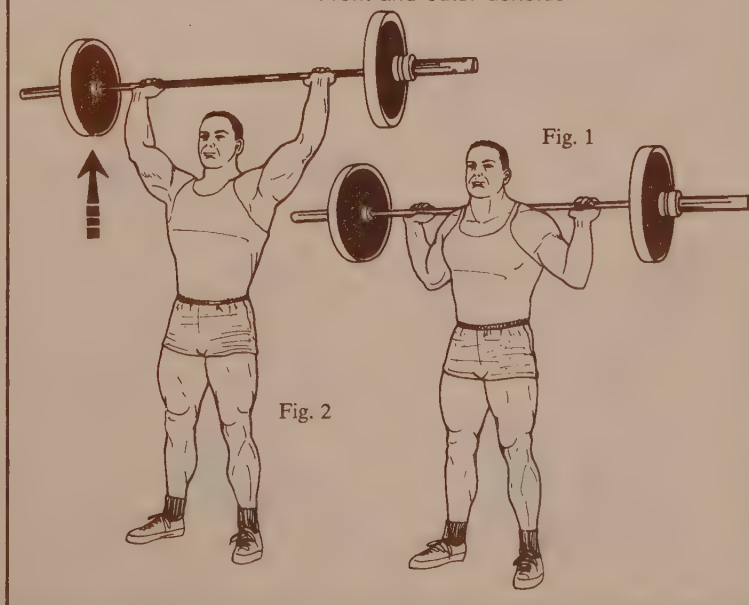
SEATED BARBELL PRESS IN FRONT AND BEHIND NECK

Front and outer deltoids



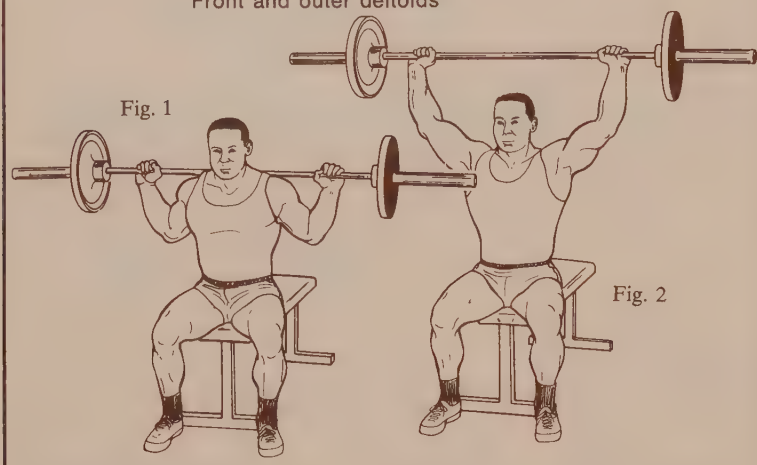
STANDING BARBELL PRESS BEHIND NECK

Front and outer deltoids

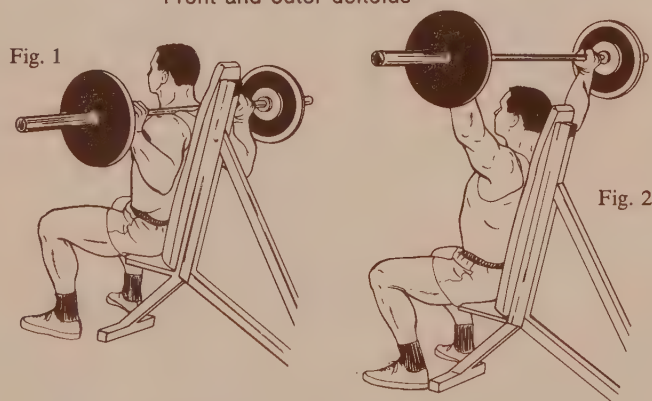


SEATED BARBELL PRESS BEHIND NECK

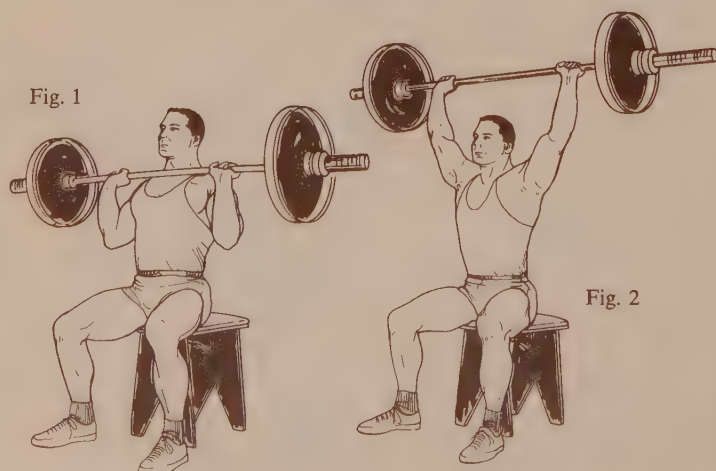
Front and outer deltoids

**SEATED BACK SUPPORTED BARBELL PRESS BEHIND NECK**

Front and outer deltoids

**SEATED BARBELL MILITARY PRESS**

Front and outer deltoids

**■ Seated Barbell Press Behind Neck**

Sit at the end of a bench with your feet spaced a comfortable distance apart with a barbell placed on your upper back. Use a grip on the bar that is about four to six inches wider than your shoulders. Keep the elbows directly under the bar. Press the barbell overhead and exhale as you lower the bar to the back of your shoulders. Maintain a solid foundation with your upper body so as not to hyper extend any more than is necessary. Pause at the shoulders on each repetition before pressing the barbell overhead. Make a full movement of the exercise by touching the barbell to the shoulders each time it is lowered and locking the elbows each time it is pressed overhead.

■ Seated Back Supported Barbell Press Behind Neck

Clean a barbell above your head and have it come to rest on your shoulders behind your head. Sit on a bench or chair that will give support to your upper back. Keep the feet planted firmly on the floor. Keep the chest high and your back straight. Press the barbell to arm's length behind your head. Do the press slowly and steadily, keeping tension on the muscles at all times. Inhale as you push the barbell overhead and exhale as you lower the bar back behind the head. Be sure to get a complete contraction and extension of the muscle by locking the arms out at the top and letting the barbell rest on your shoulders with each repetition.

■ Seated Barbell Military Press

This exercise is done exactly as a standing military press, only in a seated position, and in a stricter fashion. First, clean the barbell to the shoulders, sit down and place your feet about sixteen inches apart. Keep the chest high and your back straight. Press the barbell to arm's length overhead. Do the press slowly and steadily, keeping tension on the muscles at all times. Inhale as you push the barbell overhead and exhale as you lower the bar back to the chest.

▲ Seated Back Supported Barbell Military Press

Front and outer deltoids

This exercise is done exactly as a standing military press, only seated with your back

supported, and in a stricter fashion. First, clean a barbell to the shoulders and sit down on a chair that will give support to your upper back. Place your feet about sixteen inches apart. Keep the chest high and your back against the support. Press the barbell to arm's length overhead. Do the press slowly and steadily, keeping tension on the muscles at all times. Inhale as you push the barbell overhead and exhale as you lower the bar back to your upper chest.

▲ Standing Military Press

This is the standard military press. Clean the weight to the chest. Lock the legs and hips solidly. This will give you a solid platform from which to push. Keep the elbows in slightly and under the bar, press the weight overhead, lock the arms out. When lowering the barbell to the upper chest, be sure it rests on the chest and is not held with the arms. If the chest is held high, it will give you a nice shelf on which to place the barbell and to push from. Inhale before the press and exhale when lowering the barbell.

■ Standing Military Press Against Rack

Use a power rack to perform this exercise. Take the barbell off the pegs and support the weight on the top of your upper chest with your hands spaced about twenty-four inches apart. Keep your back straight and your hips and legs locked as you press the barbell overhead, keeping it against the rack going up and coming down. Inhale as you raise the barbell and exhale as you lower it.

■ Seated Military Press Against Rack

Front and outer deltoids

Place a bench long ways to the front and in the middle of a power rack. Take a barbell off the pegs and place it on your upper chest and front deltoids. Sit at the end of the bench with your hands spaced about thirty-two inches apart on the bar. Keep your back straight and head up as you press the barbell directly overhead, keeping the bar against the rack going up and coming down. Inhale as you press the barbell and exhale as you lower it.

■ Seated Floor Military Press Against Rack

Sit on the floor to the front and in the middle of a power rack. Take a barbell off

STANDING MILITARY PRESS

Front and outer deltoids



Fig. 1



Fig. 2

STANDING MILITARY PRESS AGAINST RACK

Front and outer deltoids



Fig. 1

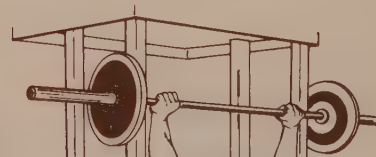


Fig. 2

SEATED FLOOR MILITARY PRESS AGAINST RACK

Front and outer deltoids

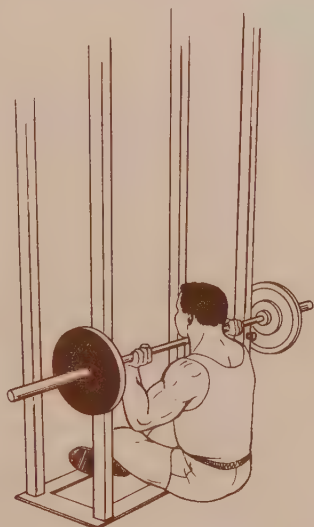


Fig. 1



Fig. 2

SEATED PRESS BEHIND NECK AGAINST RACK

Front and outer deltoids

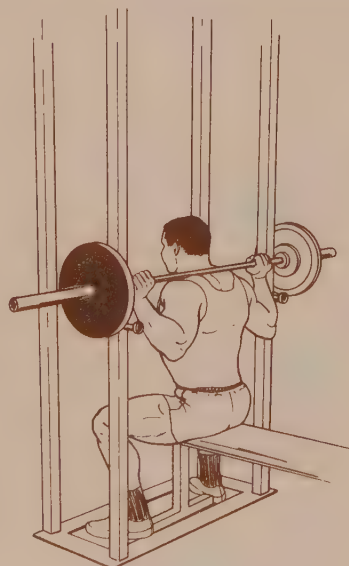


Fig. 1



Fig. 2

the pegs and place it on your upper chest and deltoids. With your hands spaced about thirty-two inches apart, keep your back straight and your head up as you press the barbell directly overhead, keeping the bar against the rack going up and coming down. Inhale as you press the barbell and exhale as you lower it.

■ Standing Press Behind Neck Against Rack

Front and outer deltoids

Use a power rack to perform this exercise. Take the barbell off the pegs and place it on your upper back. With your hands spaced about thirty-two inches apart, keep your back straight and your hips and legs locked as you press the barbell directly overhead, keeping it against the rack going up and coming down. Inhale as you press the barbell and exhale as you lower it.

■ Seated Press Behind Neck Against Rack

Place a bench long ways to the front and in the middle of a power rack. Take a barbell off the pegs and place it on your upper back. Sit at the end of the bench with your hands spaced about thirty-two inches apart on the bar. Keep your back straight and head up as you press the barbell directly overhead, keeping the bar against the rack going up and coming down. Inhale as you press the barbell and exhale as you lower it.

■ Seated Floor Press Behind Neck Against Rack

Front and outer deltoids

Sit on the floor to the front and in the middle of a power rack. Take a barbell off the pegs and place it on your upper back. With your hands spaced about thirty-two inches apart, keep your back straight and your head up as you press the barbell directly overhead, keeping the bar against the rack going up and coming down. Inhale as you press the barbell and exhale as you lower it.

▲ Standing Side Lateral Raise

Front and outer deltoids

With your feet about sixteen inches apart and dumbbells at arm's length, palms facing in toward the thighs, slowly raise the dumbbells to a position a little above shoulder height, pause, then lower back to starting position. Keep the arms straight throughout the execution of this exercise. Inhale when raising the dumbbells and exhale as they are lowered.

▲ Seated Side Lateral Raise

Sit on the edge of a bench with your legs fairly close together and dumbbells at arm's length, palms facing in toward the thighs. Slowly raise the dumbbells to a position a little above shoulder height, pause, then lower them back to starting position. Keep the arms straight throughout the execution of the exercise. Inhale when raising the dumbbells and exhale as they are lowered.

▲ Seated Back Supported Side Lateral Raise

Sit on a bench or chair that will give support to your upper back. Keep your legs fairly close together. With a dumbbell in each hand, held at arm's length, straight down, slowly raise the weights in a semi-circular motion out to the sides to a position a little above shoulder height. Pause at the top and then lower them back to starting position. Keep your arms as straight as possible throughout the execution of the exercise. Inhale when raising the dumbbells, then exhale as they are lowered.

■ Standing Dumbbell Front and Side Lateral Raise

Front and side deltoids

Hold a dumbbell in each hand and stand erect with your back straight and your feet about sixteen inches apart. With the dumbbells held at arm's length to your sides and palms facing to the rear, inhale and raise your arms straight out in front of you in a semicircular motion until the dumbbells are at arm's length overhead. Return the dumbbells to starting position, using the same path, and exhale. Now turn your palms in and inhale and raise your arms straight out to each side in a semicircular motion until the dumbbells are slightly above parallel with your shoulders. Return to starting position, using the same path, and exhale. Continue going from the front to the sides until the prescribed number of repetitions are completed.

■ Seated Dumbbell Front and Side Lateral Raise

Hold a dumbbell in each hand and sit at the end of a bench with your back straight and feet planted firmly on the floor. With your head up and dumbbells held at arm's length to your sides and palms facing to the rear, inhale and raise your arms straight

SEATED SIDE LATERAL RAISE

Front and outer deltoids

Fig. 1

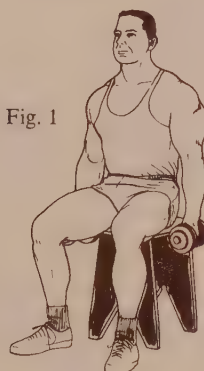
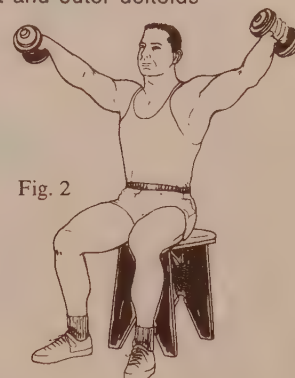


Fig. 2



SEATED BACK SUPPORTED SIDE LATERAL RAISE

Front and outer deltoids

Fig. 1

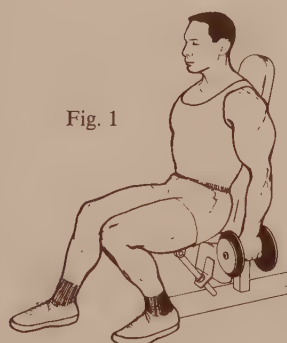
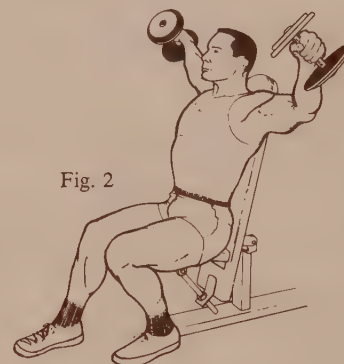


Fig. 2



SEATED DUMBBELL FRONT AND SIDE LATERAL RAISE

Front and side deltoids

Fig. 1



Fig. 3



Fig. 2

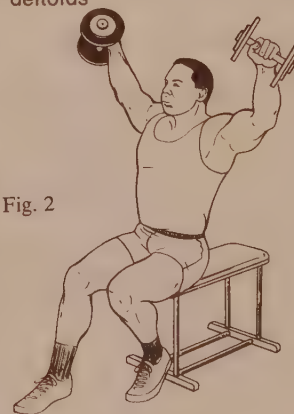
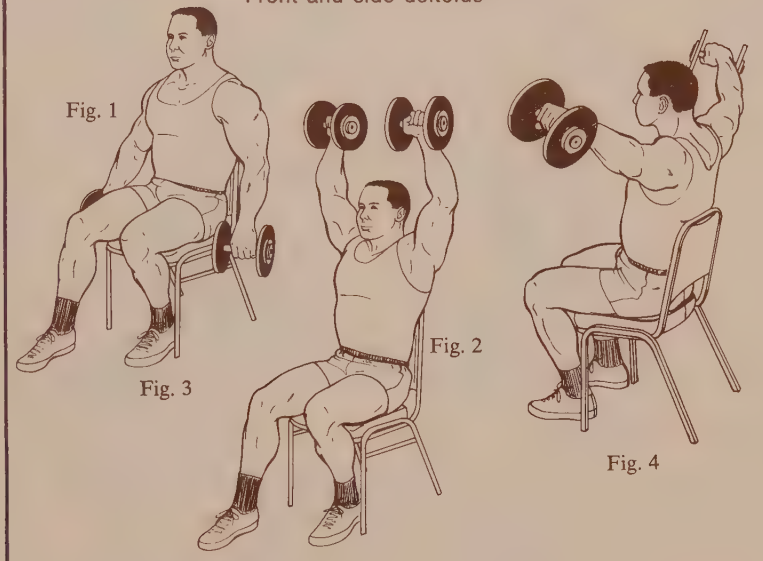


Fig. 4

SEATED BACK SUPPORTED DUMBBELL FRONT AND SIDE LATERAL RAISE

Front and side deltoids



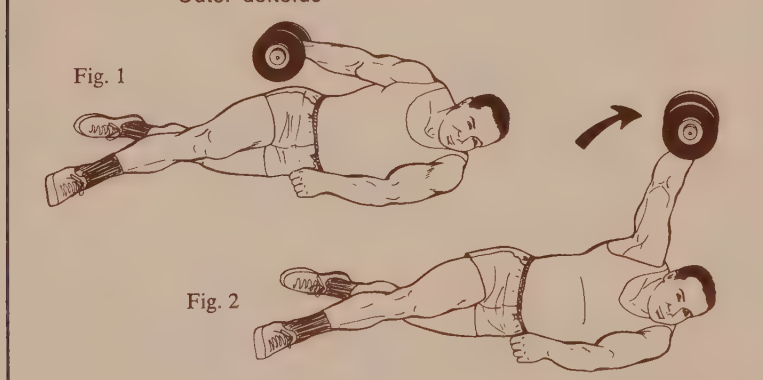
out in front of you in a semicircular motion until the dumbbells are at arm's length overhead. Return the dumbbells to starting position, using the same path, and exhale. Now turn your palms in and inhale and raise your arms straight out to each side in a semicircular motion until the dumbbells slightly above parallel with your shoulders. Return to starting position, using the same path, and exhale. Continue going from the front to the sides until the prescribed number of repetitions are completed.

■ Seated Back Supported Dumbbell Front and Side Lateral Raise

Hold a dumbbell in each hand and sit on a bench or chair that will support your back. Keep your feet planted firmly on the floor. With your head up and dumbbells held at arm's length to your sides and palms facing to the rear, inhale and raise your arms straight out in front of you in a semicircular motion until the dumbbells are at arm's length overhead. Return the dumbbells to starting position, using the same path, and exhale. Now turn your palms in and inhale and raise your arms straight out to each side in a semicircular motion until the dumbbells are slightly above parallel with your shoulders. Return to starting position using the same path and exhale. Continue going from the front to the sides until the prescribed number of repetitions are completed.

FLOOR SIDE LATERAL RAISE

Outer deltoids

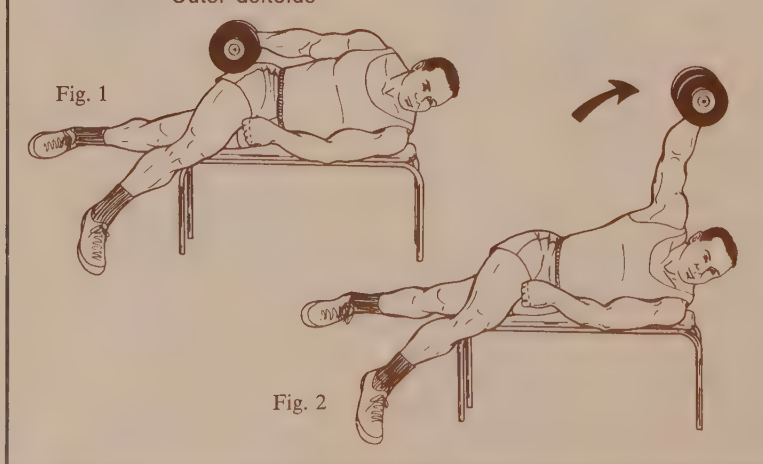


▲ Floor Side Lateral Raise

Lie on the floor as shown in illustration #1. Hold the dumbbell in your right hand, palm facing the thigh. Raise the dumbbell in a semicircular motion to the position shown in illustration #2. Please note the position of the dumbbell. It is important to maintain the angle. Do not turn the wrist. Keep the arm straight. Inhale as you raise the dumbbell overhead and exhale as it is lowered to the thigh. Exercise the right arm and then the left.

LYING SIDE LATERAL RAISE

Outer deltoids



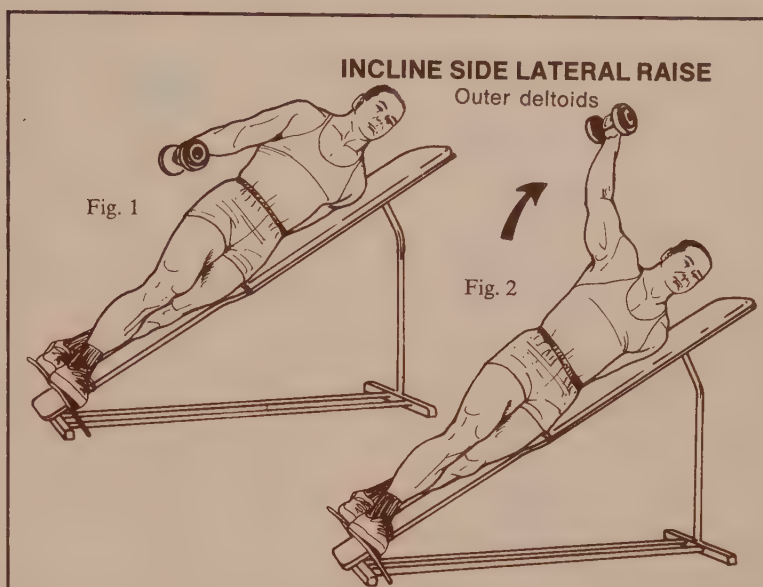
▲ Lying Side Lateral Raise

Lie on a flat bench as shown in illustration #1. Hold the dumbbell in your right hand, palm facing the thigh. Raise the dumbbell in a semicircular motion to the position shown in illustration #2. Please note the position of the dumbbell. It is important to maintain the angle. Do not turn the wrist.

Keep the arm straight. Inhale as you raise the dumbbell overhead and exhale as it is lowered to the thigh. Exercise the right arm and then the left.

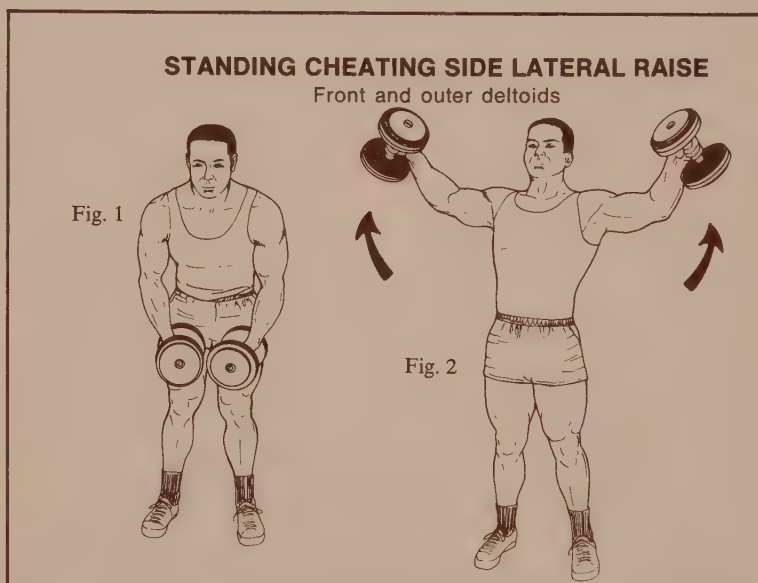
▲ Incline Side Lateral Raise

Assume the leg position on an incline bench as shown in illustration #1. Hold the dumbbell in your right hand, palm facing the thigh, raise the dumbbell to the position shown in illustration #2. Please note the position of the dumbbell. It is important to maintain the angle. Do not turn the wrist. Keep the arm straight. Inhale as you raise the dumbbell overhead, exhale as it is lowered to the thigh. Exercise the right arm and then the left.



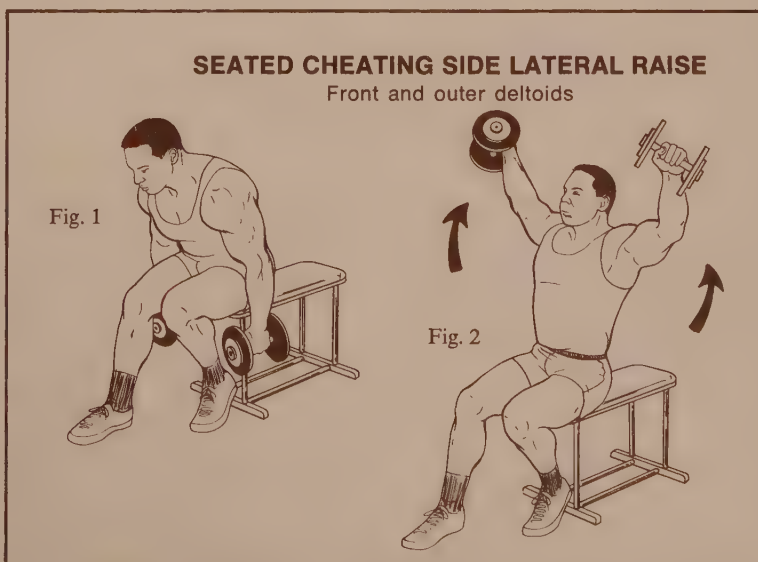
■ Standing Cheating Side Lateral Raise

Stand with your feet about sixteen inches apart. Grasp a dumbbell in each hand and place them in front of your thighs so your hands are facing each other and the dumbbells are touching. From this position bend slightly forward at the waist for more assistance while you start to raise the dumbbells out to the sides of the body and upward in a semicircular motion until they are a little higher than shoulder height. As you are raising the dumbbells, commence to arch your back to get a swinging effect with your upper body to help raise the dumbbells. Inhale as you raise the weights and exhale as you are lowering them. Keep your knees locked while you raise and lower the weights making the deltoids and supporting muscle groups do the bulk of the work.



■ Seated Cheating Side Lateral Raise

Sit at the end of a bench with your feet planted firmly on the floor. Grasp a dumbbell in each hand and place them at arm's length to your sides with your palms facing each other. From this position bend slightly forward at the waist for more assistance while you start to raise the dumbbells out to the sides of the body and upward in a semicircular motion until they are a little higher than shoulder height. As you are raising the dumbbells, commence to arch your back to get a swinging effect with your upper body to help raise the dumbbells. Inhale as you raise the weights and exhale as you are lowering them.



STANDING DELTOID PUMP

Outer deltoids

Fig. 1



Fig. 2

SEATED DELTOID PUMP

Outer deltoids

Fig. 1



Fig. 2

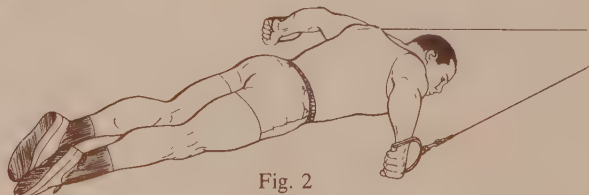
**LYING FLOOR LOW PULLEY REAR DELTOID CIRCLE**

Rear deltoids

Fig. 1



Fig. 2

**▲ Standing Deltoid Pump**

Stand erect with your feet about sixteen inches apart and your hands placed behind your back against the middle of your buttocks. Have the palms of your hands facing each other. Someone must apply resistance for you by placing their hands on the back of yours and assist you as you are raising your arms out in a semicircular motion, with the elbows locked, just above parallel with your shoulders. You must then resist them as they pull your arms back down to starting position. You will inhale as you raise your arms and exhale as you lower them. You must keep the wrists and the elbows locked out.

▲ Seated Deltoid Pump

Sit with your back at the very end of a bench. Place your hands behind your back so they are against the top part of your buttocks. Have the palms of your hands facing each other. Someone must kneel behind you and apply resistance for you by placing their hands on the back of yours and resist you as you are raising your arms out in a semicircular motion, with the elbows locked, just above parallel with your shoulders. You must then resist them as they pull your arms back down to starting position. You will inhale as you raise your arms and exhale as you lower them. You must keep the wrists and the elbows locked out.

▲ Lying Floor Low Pulley Rear Deltoid Circle

Lie face down on the floor in front of a wall pulley with your head towards the pulley but far enough away from the machine to hold the weight stack up off the machine while grasping the two lower pulley cable handles with both hands keeping your arms held in front of you with arms straight and elbows locked. Grasp the left handle with right hand and the right pulley with your left hand, crossing the cables. From this position, inhale and bring the cables back in a semicircular motion to the sides of your upper thighs. Keep the cables parallel to your body both coming and going. Inhale as you pull the cables to your sides and exhale as you return them to the overhead position. Be certain your arms are held straight throughout the entire exercise.

▲ Standing Side Deltoid Circle

Stand erect with a dumbbell in each hand hanging at your sides with your arms

straight and elbows locked out. Inhale and raise the dumbbells out to the sides and up in a semicircular motion until they come together at arm's length overhead. Lower the weights down in the same semicircular motion to starting position and exhale. Please note in illustration #1 that the palms of your hands are facing in but as you near the top of the movement the palms are rotated out as shown in illustration #2.

▲ Seated Side Deltoid Circle

Front and outer deltoids, trapezius

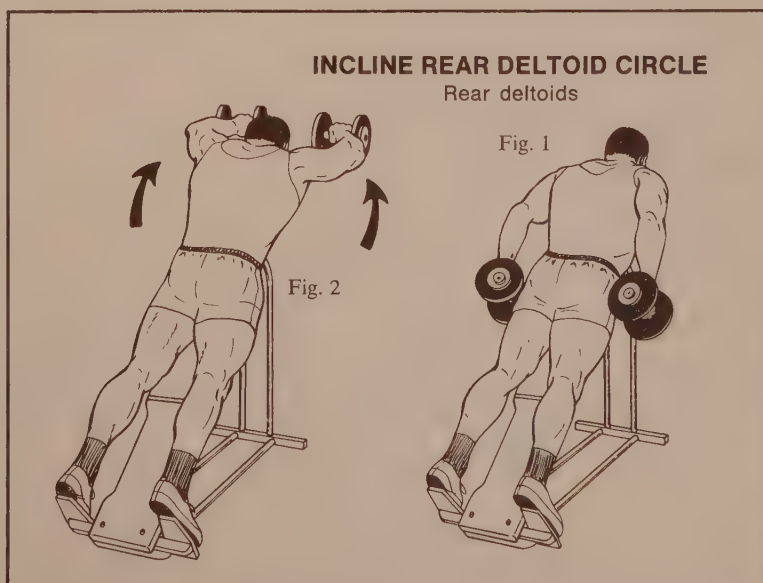
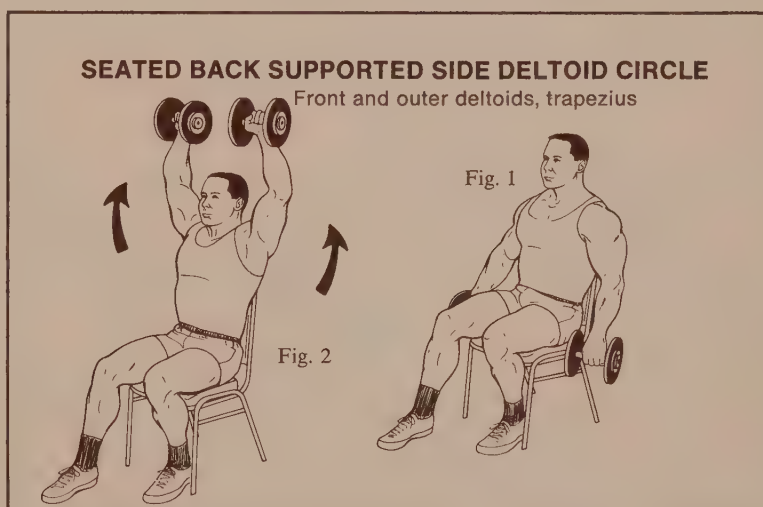
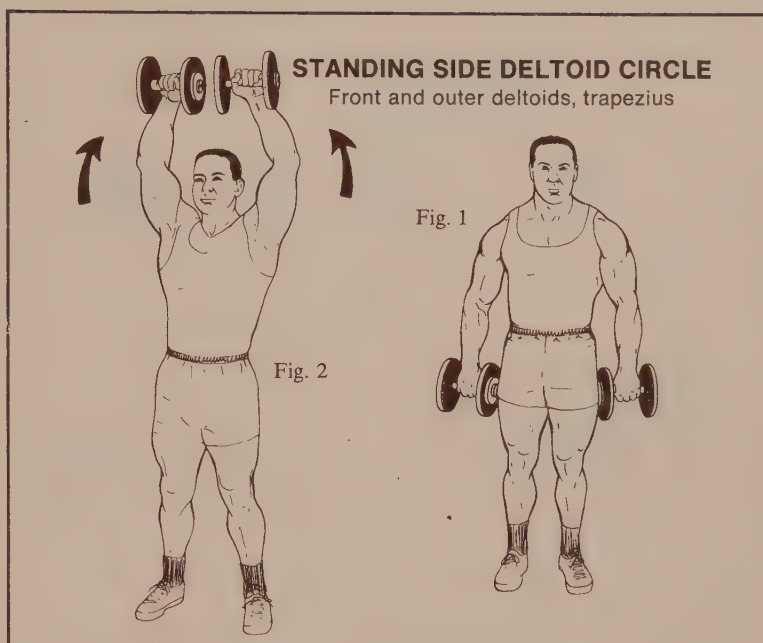
Sit at the end of a bench with your feet planted firmly on the floor. With a dumbbell in each hand hanging at your sides with your arms straight and elbows locked out. Inhale and raise the dumbbells out to the sides and up in a semicircular motion until they come together at arm's length overhead. Lower the weights down in the same semicircular motion to starting position and exhale. (Please note that the palms of your hands are facing in but as you near the top of the movement, the palms are rotated out.)

▲ Seated Back Supported Side Deltoid Circle

Sit on a chair that will give support to your upper back. With a dumbbell in each hand hanging at your sides with your arms straight and elbows locked out, plant your feet firmly on the floor and have your back against the chair for support. Inhale and raise the dumbbells out to the sides and up in a semicircular motion until they come together at arm's length overhead. Lower the weights down in the same semicircular motion to starting position and exhale. Please note in illustration #1 that the palms of your hands are facing in but as you near the top of the movement the palms are rotated out as shown in illustration #2.

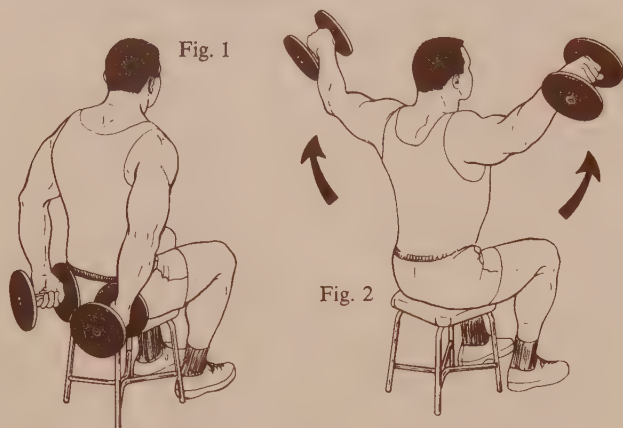
■ Incline Rear Deltoid Circle

Lie face down on an incline bench with a dumbbell in each hand. Your arms should be held directly at your sides, elbows locked, with the palms of your hands at the sides of your upper thigh. Inhale and raise the dumbbells in a semicircular motion out past your torso until the dumbbells touch behind your head at arm's length. Lower the dumbbells in the same path and exhale when they reach the sides of your thighs.



SEATED REAR SIDE LATERAL RAISE

outer deltoids

**▲ Seated Rear Side Lateral Raise**

Sit with your back at the very end of a stool. With a dumbbell in each hand, place your hands behind your back so the dumbbells are against the top part of your buttocks and the palms of your hands facing each other. Inhale and raise the dumbbells up in a semicircular motion, keeping them out to the sides of your torso until they are just above parallel with your shoulders. Then lower the weights in the same manner behind your back and exhale.

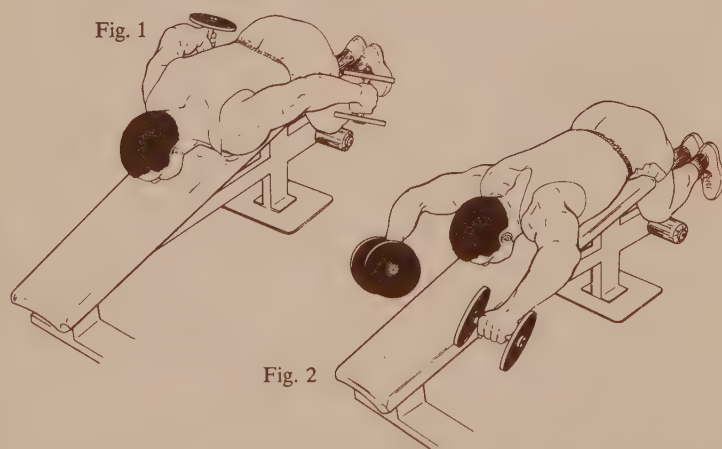
▲ Standing Rear Side Lateral Raise

outer deltoids

With a dumbbell in each hand, place your hands behind your back so the dumbbells are against the top part of your buttocks and the palms of your hands are facing each other as you stand erect with your back straight and head up. Inhale and raise the dumbbells up in a semicircular motion, keeping them out to the sides of your torso until they are just above parallel with your shoulders. Then lower the weights in the same manner behind your back and exhale.

LYING DECLINE REAR DELTOID CIRCLE

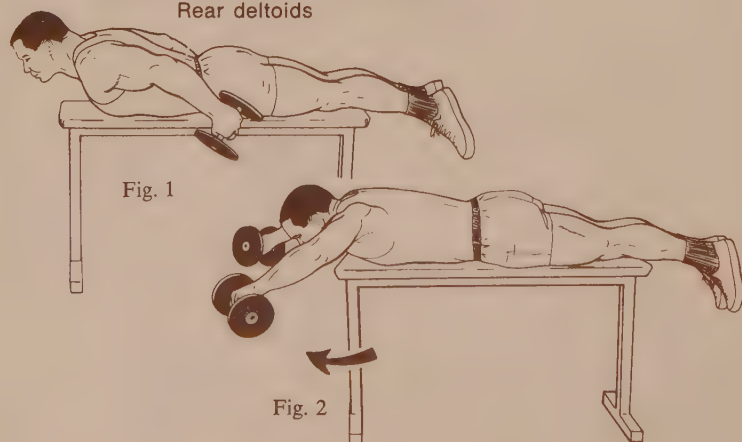
Rear deltoids

**■ Lying Decline Rear Deltoid Circle**

Lie face down on a decline bench with your head at the low end of the bench. With a dumbbell held in each hand, hold your arms directly at your sides with the elbows locked out and the arms straight. From this position, inhale and bring the dumbbells out in a semicircular motion parallel to your upper body until they come to arm's length above your head. Return the dumbbells to your sides using the same path and exhale. It is important to keep the arms straight during the entire exercise.

LYING REAR DELTOID CIRCLE

Rear deltoids

**■ Lying Rear Deltoid Circle**

Lie face down on a flat bench with a dumbbell in each hand. Your arms should be held directly at your sides, elbows locked, with the palms of your hands at the sides of your upper thighs. Inhale and bring the dumbbells in a semicircular motion out past your torso until the dumbbells touch at arm's length. Return the dumbbells in the same path and exhale when they reach the sides of your thighs.

▲ Incline Dumbbell Held to the Front Side Lateral Raise

Lie on an incline bench with your left side on the bench. Please note the position for your feet. With a dumbbell in your right hand

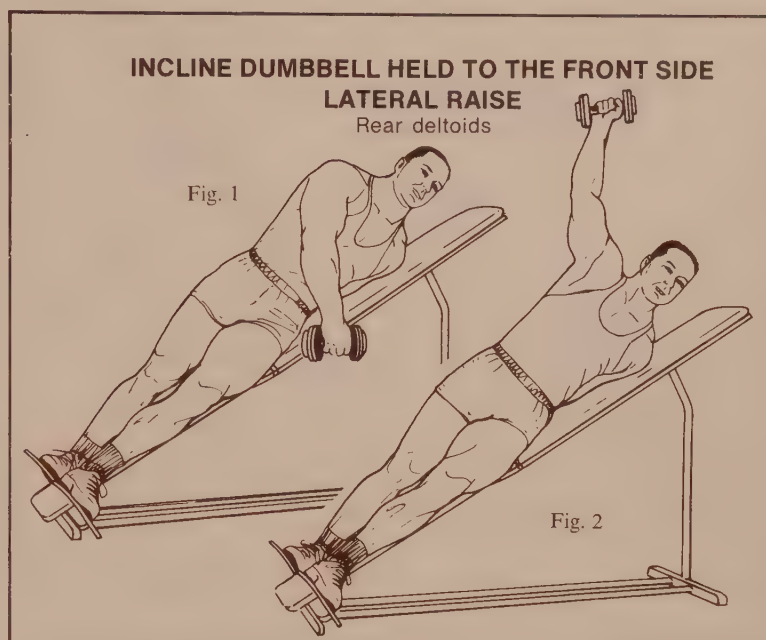
and placed across your body so the right hand is about even with your left thigh and your palm facing down, inhale, keeping your arm straight and elbow locked out as you raise the dumbbell in a semicircular motion straight up until it is vertical. Lower the weight in the same manner and exhale. Do the prescribed number of repetitions and then change positions, repeating the same number of repetitions with your left arm.

▲ Lying Dumbbell Held to the Front Side

Lateral Raise

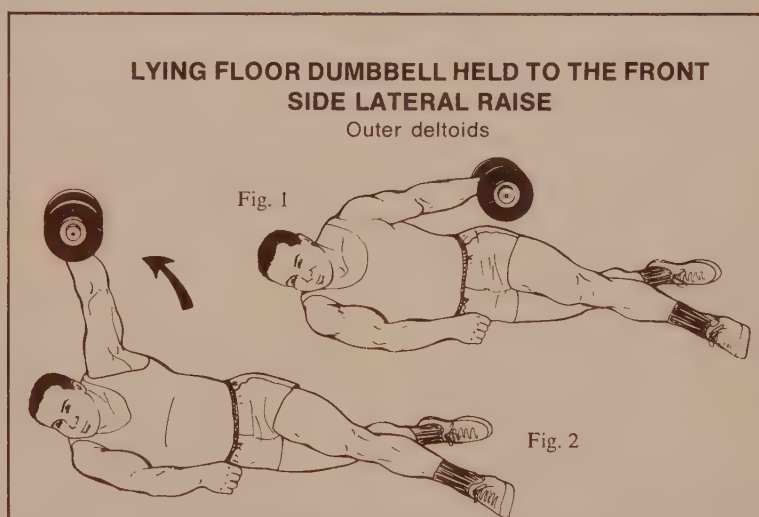
Rear deltoids

Lie on a flat bench with your right side on the bench. With a dumbbell in your left hand and placed across your body so the left hand is about even with your right thigh and your palm facing down, inhale, keeping your arm straight and elbow locked out as you raise the dumbbell in a semicircular motion straight up until it is vertical. Lower the weight in the same manner and exhale. Do the prescribed number of repetitions and then change position, repeating the same number of repetitions with your right arm.



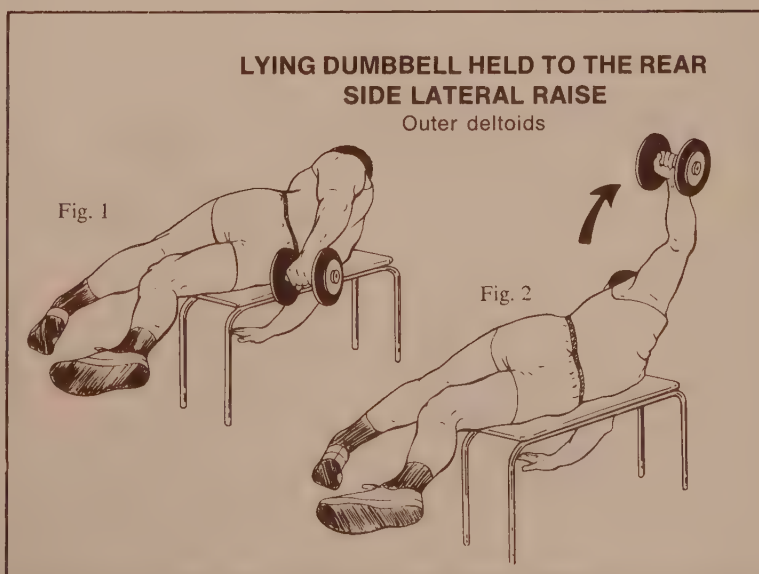
▲ Lying Floor Dumbbell Held to the Front Side Lateral Raise

Lie on the floor with your right side on the floor. With a dumbbell in your left hand and placed across your body so the left hand is about even with your right thigh and your palm facing down, inhale, keeping your arm straight and elbow locked out as you raise the dumbbell in a semicircular motion straight up until it is vertical. Lower the weight in the same manner and exhale. Do the prescribed number of repetitions and then change position, repeating the same number of repetitions with your right arm.



▲ Lying Dumbbell Held to the Rear Side Lateral Raise

Lie on a flat bench with your right side on the bench. With a dumbbell in your left hand and placed behind your back about even with your right buttocks, and your palm facing down, inhale keeping your arm straight and elbow locked out as you raise the dumbbell in a semicircular motion straight up until it is vertical. Lower the weight in the same manner and exhale. Do the prescribed number of repetitions and then change positions repeating the same number of repetitions with your right arm.



INCLINE DUMBBELL HELD TO THE REAR SIDE LATERAL RAISE

Outer deltoids

Fig. 1

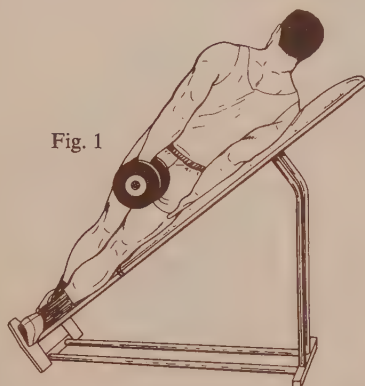
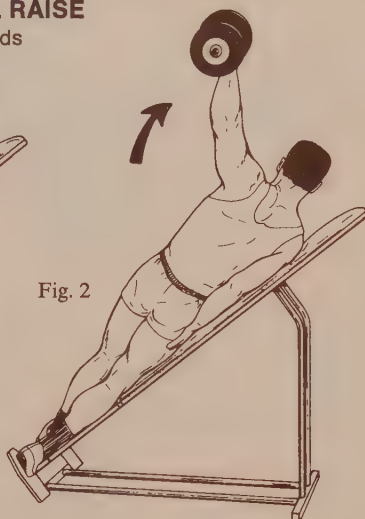


Fig. 2



▲ Incline Dumbbell Held to the Rear Side Lateral Raise

Lie on an incline bench with your right side on the bench. Please note the position for your feet. With a dumbbell in your left hand and placed behind your back about even with your right buttocks, and your palm facing down, inhale keeping your arm straight and elbow locked out as you raise the dumbbell in a semicircular motion straight up until it is vertical. Lower the weight in the same manner and exhale. Do the prescribed number of repetitions and then change positions repeating the same number of repetitions with your right arm.

▲ Floor Dumbbell Held to the Rear Side Lateral Raise

Outer deltoids

Lie on the floor with your right side on the floor. With a dumbbell in your left hand and placed behind your back about even with your right buttocks, and your palm facing down, inhale keeping your arm straight and elbow locked out as you raise the dumbbell in a semicircular motion straight up until it is vertical. Lower the weight in the same manner and exhale. Do the prescribed number of repetitions and then change positions repeating the same number of repetitions with your right arm.

SEATED DUMBBELL STRAIGHT ARM FRONT DELTOID RAISE

Front deltoids

Fig. 1

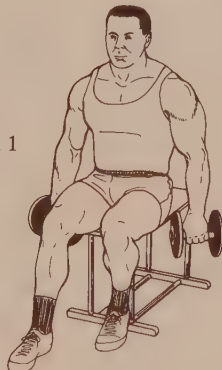


Fig. 2



▲ Seated Dumbbell Straight Arm Front Deltoid Raise

Grasp a dumbbell with both hands holding them at your sides with your palms facing in, arms straight and elbows locked out. Sit at the end of a bench with your back straight and your head up. Inhale and raise both dumbbells up in a semicircular motion until they are at arm's length overhead. Lower the dumbbells back to starting position using the same semicircular motion and exhale.

SEATED BACK SUPPORTED DUMBBELL STRAIGHT ARM FRONT DELTOID RAISE

Front deltoids

Fig. 1

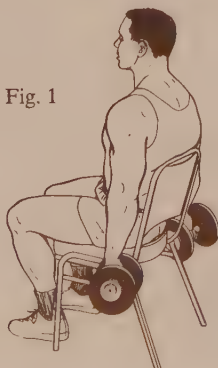
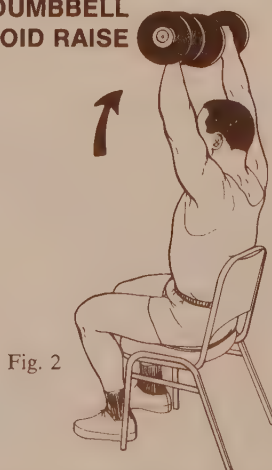


Fig. 2



▲ Seated Back Supported Dumbbell Straight Arm Front Deltoid Raise

Grasp a dumbbell with both hands holding them at your sides with your palms facing in, arms straight and elbows locked out. Sit on a chair that will give support to your upper back. Keep your back against the support and your head up as you inhale and raise both dumbbells up in a semicircular motion until they are at arm's length overhead. Lower the dumbbells back to starting position using the same semicircular motion and exhale.

▲ Standing Dumbbell Straight Arm Front Deltoid Raise

Grasp a dumbbell with both hands holding either at your sides or in front of your thighs depending if you are sitting or standing. With your palms facing in, arms straight and elbows locked out, inhale and raise both dumbbells up in a semicircular motion until they are at arm's length overhead. Lower the dumbbells back to starting position using the same semicircular motion and exhale.

▲ Incline Dumbbell Straight Arm Front Deltoid Raise

Front deltoids

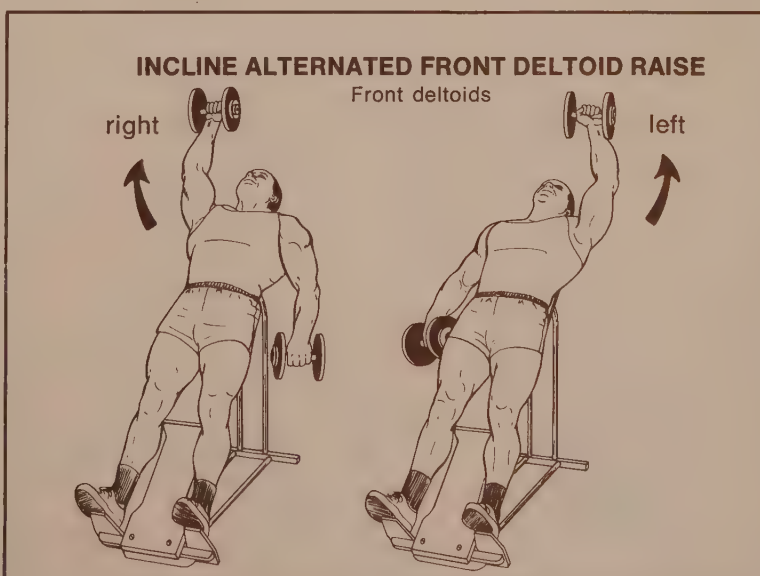
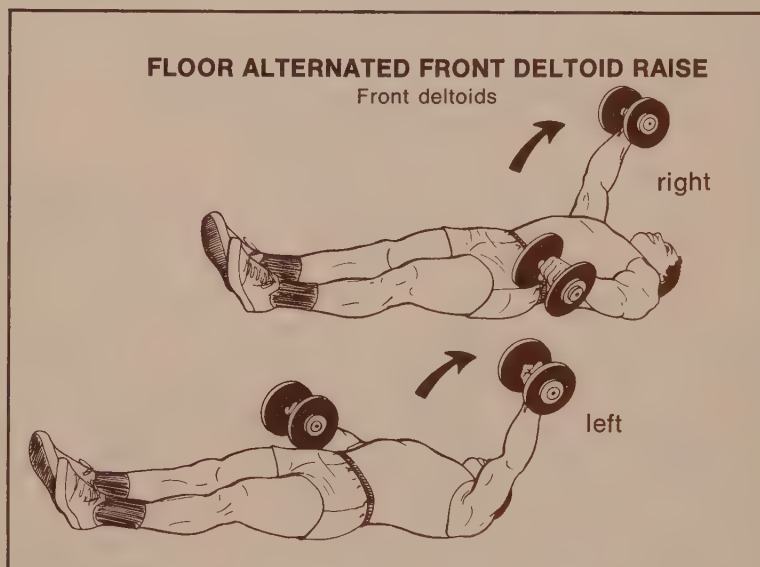
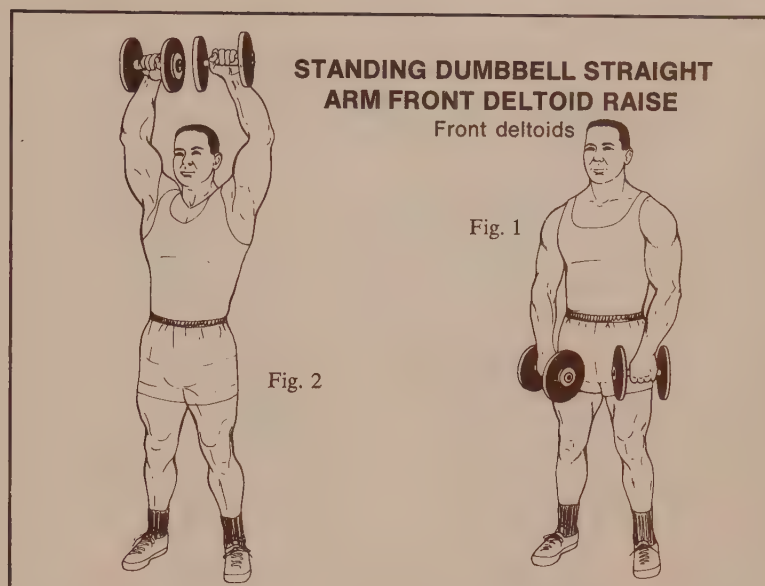
Grasp a dumbbell with both hands holding them at your sides with your palms facing in, arms straight and elbows locked out. Lie back on an incline bench with your head on the bench. Inhale and raise both dumbbells up in a semicircular motion until they are at arm's length overhead. Lower the dumbbells back to starting position using the same semicircular motion and exhale.

▲ Floor Alternated Front Deltoid Raise

Hold a dumbbell in each hand at arm's length at your sides with your palms facing toward the rear and lie on the floor with your head on the floor. With your arms at your sides and your elbows locked out, raise the right dumbbell up in a semicircular motion until it is vertical. As you commence to lower the right dumbbell, start raising the left dumbbell using a similar semicircular motion so as the right dumbbell returns to starting position the left dumbbell is overhead. Inhale as you raise the right dumbbell and exhale as you raise the left dumbbell.

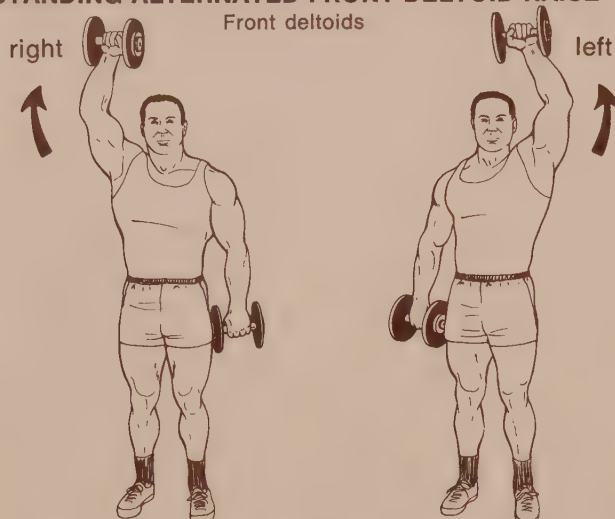
▲ Incline Alternated Front Deltoid Raise

Hold a dumbbell in each hand at arm's length at your sides with your palms facing toward the rear and lie back on an incline bench with your head on the bench. With your arms hanging at your sides and your elbows locked out, raise the right dumbbell up in a semicircular motion until it is vertical. As you commence to lower the right dumbbell, start raising the left dumbbell using a similar semicircular motion so as the right dumbbell returns to starting position the left dumbbell is overhead. Inhale as you raise the right dumbbell and exhale as you raise the left dumbbell.



STANDING ALTERNATED FRONT DELTOID RAISE

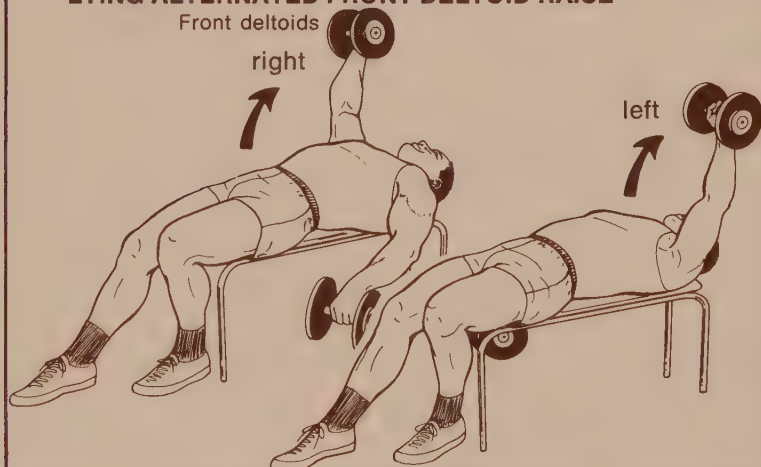
Front deltoids

**▲ Standing Alternated Front Deltoid Raise**

Hold a dumbbell in each hand at arm's length at your sides with your palms facing toward the rear. Stand erect with your back straight, head up and hips locked. With your arms straight and your elbows locked out, raise the right dumbbell up in a semicircular motion until it is vertical. As you commence to lower the right dumbbell, start raising the left dumbbell using a similar semicircular motion so as the right dumbbell returns to starting position the left dumbbell is overhead. Inhale as you raise the right dumbbell and exhale as you raise the left dumbbell.

LYING ALTERNATED FRONT DELTOID RAISE

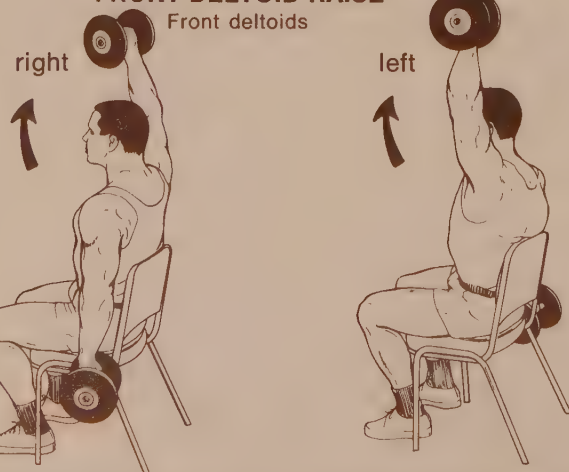
Front deltoids

**▲ Lying Alternated Front Deltoid Raise**

Hold a dumbbell in each hand at arm's length at your sides with your palms facing toward the rear and lie on a flat bench with your head on the bench. With your arms hanging at your sides and your elbows locked out, raise the right dumbbell up in a semicircular motion until it is vertical. As you commence to lower the right dumbbell, start raising the left dumbbell using a similar semicircular motion so as the right dumbbell returns to starting position the left dumbbell is overhead. Inhale as you raise the right dumbbell and exhale as you raise the left dumbbell.

SEATED BACK SUPPORTED ALTERNATED FRONT DELTOID RAISE

Front deltoids

**▲ Seated Back Supported Alternated Front Deltoid Raise**

Hold a dumbbell in each hand and sit on a chair that will give support to your upper back. With the dumbbells held at arm's length to your sides and palms facing to the rear, inhale and raise your right arm up in a semicircular motion overhead, keeping the arm straight. Exhale as you lower the dumbbell back to starting position. Raise your left arm, keeping your position stationary with your back against the support. Do not lean forward or backwards. Do the work with the deltoid muscle and work each arm individually.

▲ Seated Alternated Front Deltoid Raise

Front deltoids

Hold a dumbbell in each hand and sit at the end of a bench with your feet planted firmly on the floor. With the dumbbells held at arm's length to your sides and palms facing to the rear, inhale and raise your right arm up in a semicircular motion overhead, keeping the arm straight. Exhale

as you lower the dumbbell back to starting position. Raise your left arm, keeping your position stationary. Do not lean forward or backwards. Do the work with the deltoid muscle and work each arm individually.

▲ Incline Face Forward Half Way Alternated Front Dumbbell Raise

Lie face forward on an incline bench. Grasp a dumbbell with each hand, palms facing down. With your arms straight and your elbows locked out, inhale and raise your right arm up in a semicircular motion until it is about in line with your right eye. As you commence to lower your right arm, proceed to raise your left arm using the similar semicircular motion. As the right goes down the left will come up. Inhale as you raise the right arm and exhale as you raise the left arm.

▲ Incline Face Forward Half Way Front Dumbbell Raise

Front deltoids

Lie face forward on an incline bench. Grasp a dumbbell with each hand, palms facing down. With your arms straight and your elbows locked out, inhale and raise your arms up in a semicircular motion until they are about even with your eyes. Lower the weights back to starting position and exhale.

▲ Seated Low Pulley Straight Arm Front Deltoid Raise

Place a bench long ways in front of a wall pulley. Grasp the low pulley handles with both hands, palms facing down, and sit on the bench facing away from the pulley. Sit far enough away so your arms will support the weight stacks as they hang at your sides. With your arms straight and elbows locked out, inhale and raise both arms up in front of you in a semicircular motion until your hands are nearly vertical. Lower the cables back to starting position and exhale.

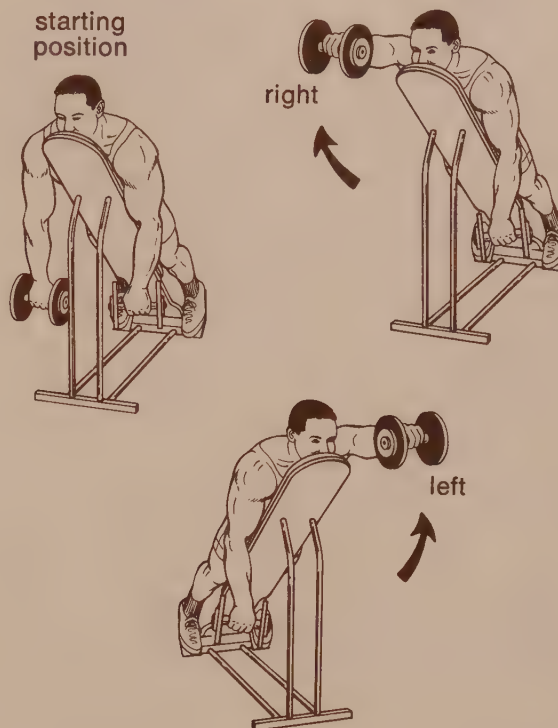
▲ Standing Low Pulley Straight Arm Front Deltoid Raise

Front deltoids

Stand in front of a wall pulley, facing away from the machine. Grasp the low pulley handles with both hands, palms facing down. Stand far enough away so your arms will support the weight stacks as they hang at your sides. With your arms straight and

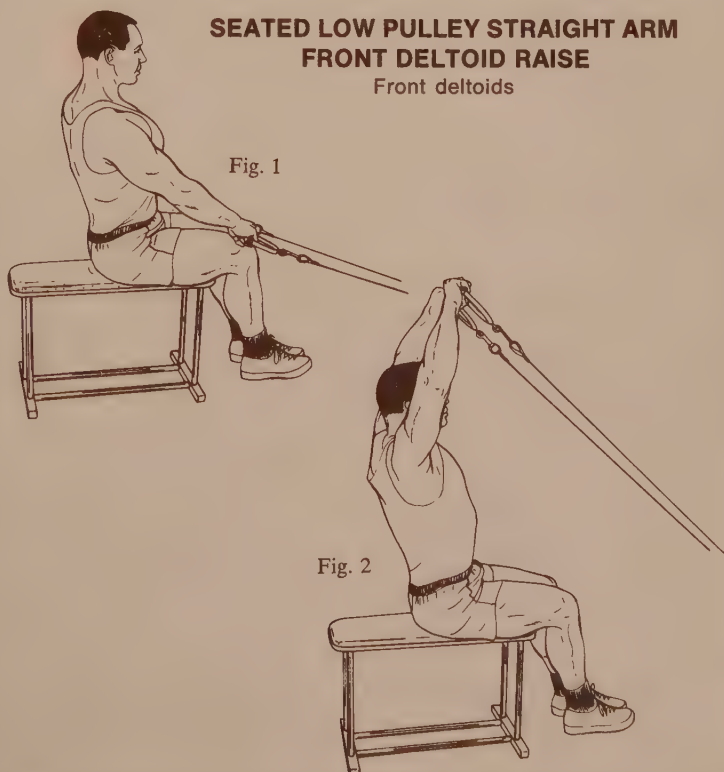
INCLINE FACE FORWARD HALF WAY ALTERNATED FRONT DUMBBELL RAISE

Front deltoids



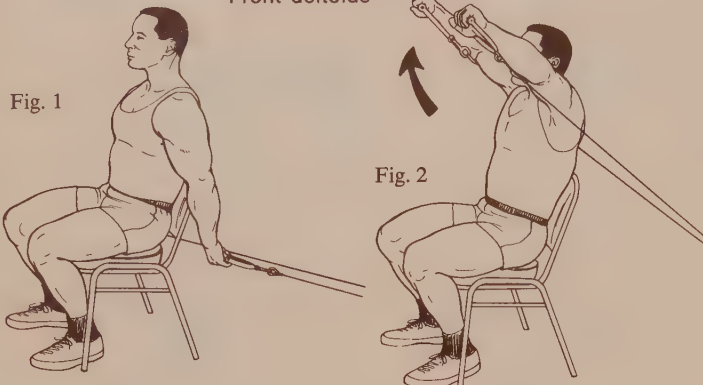
SEATED LOW PULLEY STRAIGHT ARM FRONT DELTOID RAISE

Front deltoids



SEATED BACK SUPPORTED STRAIGHT ARM FRONT DELTOID RAISE ON LOW PULLEY

Front deltoids



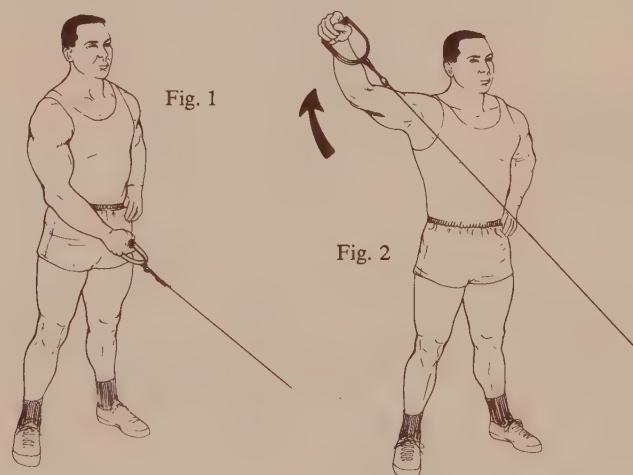
elbows locked out, inhale and raise both arms up in front of you in a semicircular motion until your hands are nearly vertical. Lower the cables back to starting position and exhale.

▲ Seated Back Supported Straight Arm Front Deltoid Raise on Low Pulley

Place a chair that will give support to your upper back in front of a wall pulley. Grasp the lower pulley handles with both hands, palms facing down, and sit on the chair facing away from the pulley. Sit far enough away so your arms will support the weight stacks as they hang at your sides. With your arms straight and elbows locked out, inhale and raise both arms up in front of you in a semicircular motion until your hands are nearly vertical. Lower the cables back to starting position and exhale.

STANDING LOW PULLEY DELTOID RAISE

Outer deltoids

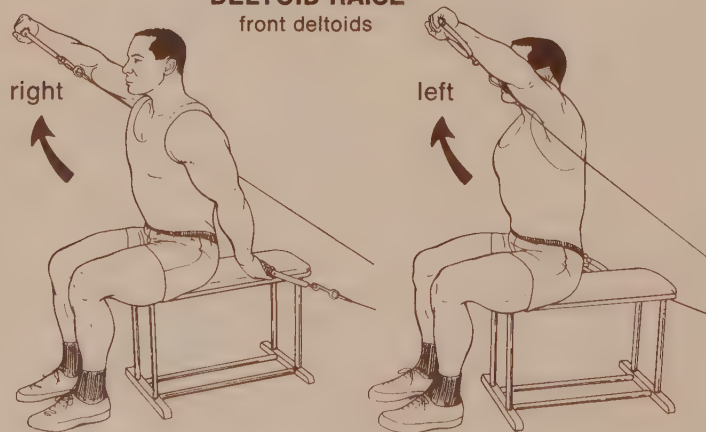


▲ Standing Low Pulley Deltoid Raise

Using a wall pulley that has handles at the bottom, stand so your left side is facing the pulley. Grasp the bottom handle of the wall pulley with your right hand. Stand erect and far enough away from the machine so there is tension on the pulley cable. Your right hand should be placed about in line with the groin area on your left side. Inhale and raise the pulley straight up and out to the side keeping the arm straight during the entire exercise. Continue to raise the right arm until it is just above parallel with the right shoulder. From here lower the pulley cable down in the same arc as you used to raise it and exhale. Complete the prescribed number of repetitions with your right arm and then change sides repeating the movement. Both sides constitute one set.

SEATED LOW PULLEY ALTERNATED FRONT DELTOID RAISE

front deltoids



▲ Seated Low Pulley Alternated Front Deltoid Raise

Place a bench in front of a wall pulley machine. Grasp the low pulley handles of the pulley with both hands, palms facing down, and sit far enough away from the pulley so you are supporting the weight stack with your hands at your sides. Your back should be facing the machine. Keep your back straight and your arms locked out with your feet about sixteen inches apart. With your arms hanging straight down to your sides and your elbows locked, raise your right arm up in a semicircular motion until your hand is nearly vertical. As you commence to lower your right hand,

your left hand should come up using a similar semicircular motion. As the right comes down, the left goes up. Inhale while raising your right arm and exhale raising your left arm.

▲ Standing Low Pulley Alternated Front Deltoid Raise

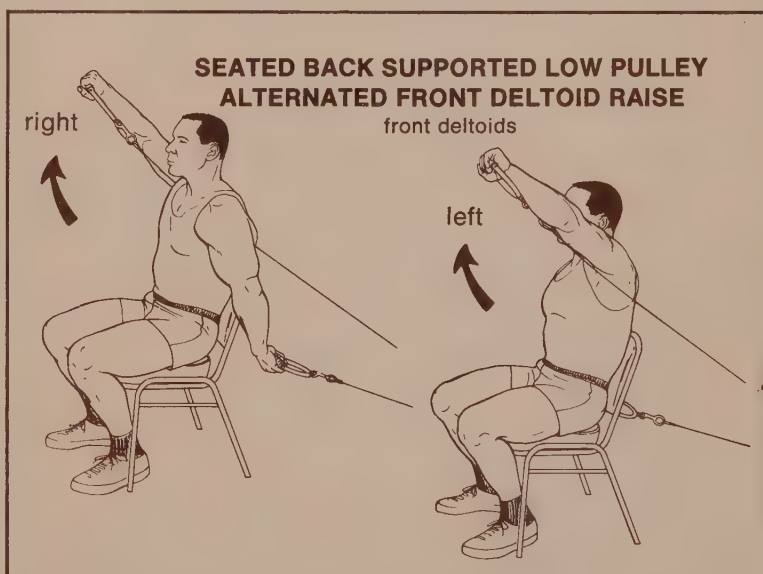
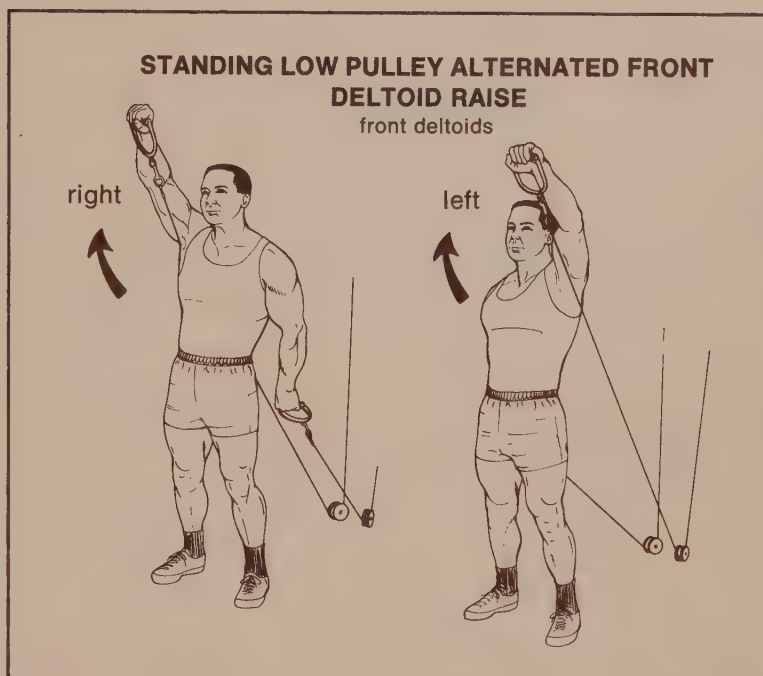
Grasp the low pulley handles of a wall pulley machine with both hands, palms facing down, and step far enough away from the pulley so you are supporting the weight stack with your hands at your sides. Keep your back straight and your arms locked out with your feet about sixteen inches apart. With your arms straight and your elbows locked out, raise your right arm up in a semicircular motion until your hand is nearly vertical. As you commence to lower your right hand, your left hand should come up using a similar semicircular motion. As the right comes down, the left goes up. Inhale while raising your right arm and exhale raising your left arm.

▲ Seated Back Supported Low Pulley Alternated Front Deltoid Raise

Place a chair that will give support to your upper back in front of a wall pulley machine. The back of the chair should be facing the pulley. Grasp the low pulley handles of the pulley with both hands, palms facing down, and sit far enough away from the pulley so you are supporting the weight stack with your hands at your sides. Keep your back against the chair and your arms hanging straight down to your sides and your elbows locked, raise your right arm up in a semicircular motion until your hand is nearly vertical. As you commence to lower your right hand, your left hand should come up using a similar semicircular motion. As the right comes down, the left goes up. Inhale while raising your right arm and exhale raising your left arm.

▲ Standing Bent Over Low Pulley Alternated Front Deltoid Raise

Stand with your back facing a low wall pulley. Bend down and grasp the low pulley handles of the machine with both hands, palms facing down. Step far enough away from the pulley so you are supporting the



STANDING LOW PULLEY BEHIND BACK DELTOID RAISE

Outer deltoids

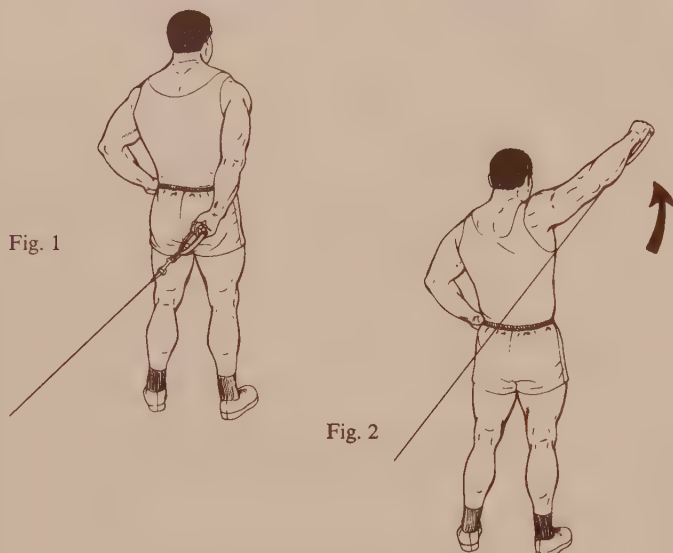


Fig. 1

Fig. 2

BENT OVER LOW PULLEY REAR DELTOID RAISE

Rear deltoids

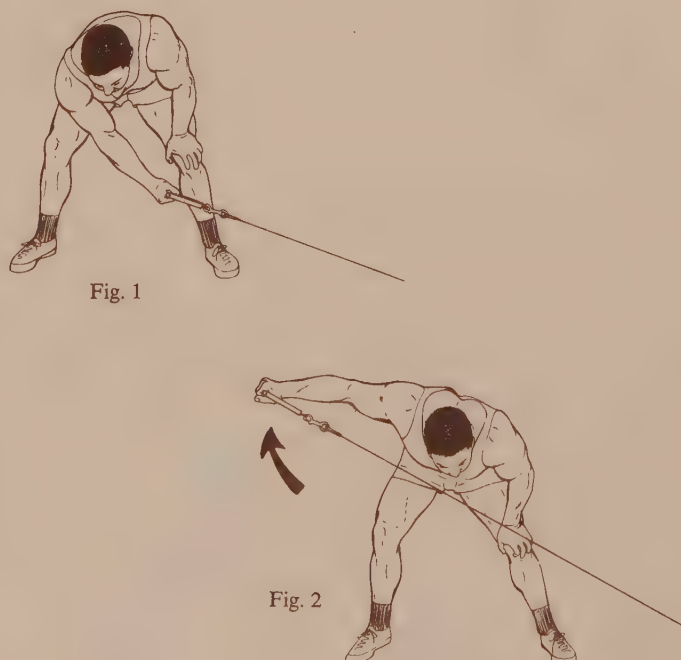


Fig. 1

Fig. 2

weight stack with your hands at your sides. Keep your back straight and your arms locked out with your feet about sixteen inches apart. With your arms straight and your elbows locked out, bend forward at the waist to almost a 90° angle. Raise your right arm up in a semicircular motion until your hand is nearly horizontal. As you commence to lower your right hand, your left hand should come up using a similar semicircular motion. As the right comes down, the left goes up. Inhale while raising your right arm and exhale raising your left arm.

■ Standing Low Pulley Behind Back Deltoid Raise

Using a wall pulley that has handles at the bottom, stand so your left side is facing the pulley. Grasp the bottom handle of the wall pulley with your right hand. Stand erect and far enough away from the machine so there is tension on the pulley cable. Your right hand will be behind your back about in line with the upper part of the buttocks. Inhale and raise the pulley straight up and out to the side keeping the arm straight during the entire exercise. Continue to raise the right arm until it is just above parallel with the right shoulder. From here lower the pulley cable down in the same arc as you used to raise it and exhale. Complete the prescribed number of repetitions with your right arm and then change sides repeating the movement. Both sides constitute one set.

■ Bent Over Low Pulley Rear Deltoid Raise

Face a wall pulley with the left side of your body and grasp the low handle of the wall pulley with your right hand. Step out away from the pulley so that you are supporting the weight stack with your right arm. Bend at the waist until your upper body is nearly parallel to the floor. Use your left arm to help support your upper body by placing it on your left thigh just above the knee. Keep your right elbow locked and your arm as straight as possible as you pull the weight up and out in a semicircular motion until your right arm is even in height to the right shoulder. Concentrate on having your right hand in line with your right ear at the top of the exercise. Inhale as you raise the weight and exhale as you lower the weight. You must do both the right side and the left side to constitute a set.

▲ Lying Floor Low Pulley Deltoid Raise

Lie on your left side on the floor in front of

a wall pulley with your feet closest to the machine. Grasp the low pulley with your right hand and lie back on your side far enough away from the pulley so your right arm will hold the weight stack up off the machine in the starting position. With your arm held straight to your side, raise the cable up in a semicircular motion past your upper body until you come to arm's length behind your head. Inhale as you raise the pulley and exhale as you lower the pulley back to starting position. Do the prescribed number of repetitions with your right arm and change sides, doing the same number of repetitions with your left arm.

▲ Lying Low Pulley Front Deltoid Raise

Place a bench the long way in front of a low wall pulley far enough away from the pulley to properly perform the exercise through a full range of motion. Grasp the low pulley cable handle with your right hand and lie with your left side on the bench, with your feet towards the pulley. With your right arm locked out and your right hand behind your back about in line with the middle of your buttocks, raise the cable up in a semicircular motion past your upper body until your arm is vertical. Inhale as you raise the pulley and exhale as you lower the pulley back to starting position. Do the prescribed number of repetitions with your right arm and then change sides doing the same number of repetitions with your left arm.

▲ Lying Floor Low Pulley Across Body Rear Deltoid Raise

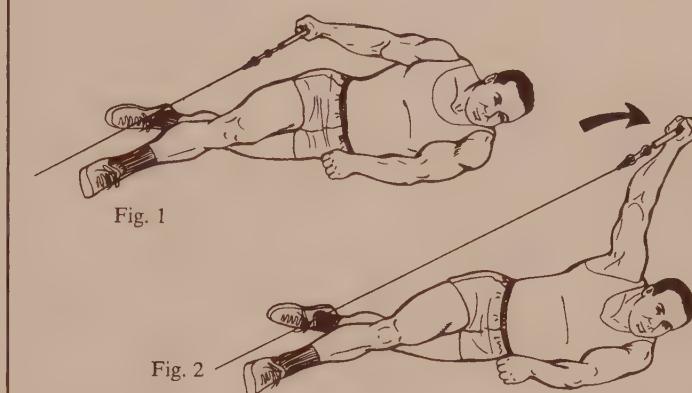
Grasp the low pulley cable handle of a wall pulley with your right hand and lie on your left side on the floor, side ways, in front of the pulley. Lie far enough away from the pulley to properly perform the exercise throughout a full range of motion. With your right arm out in front of you and in line with your shoulders, inhale and raise your arm in a semicircular motion to a vertical position above your right shoulder. Be sure your right arm is held straight and kept in line with your shoulder. Exhale as you lower the weight back to starting position.

▲ Lying Low Pulley Across Body Rear Deltoid Raise

Place a bench side ways in front of a low wall pulley far enough away from the pulley to properly perform the exercise

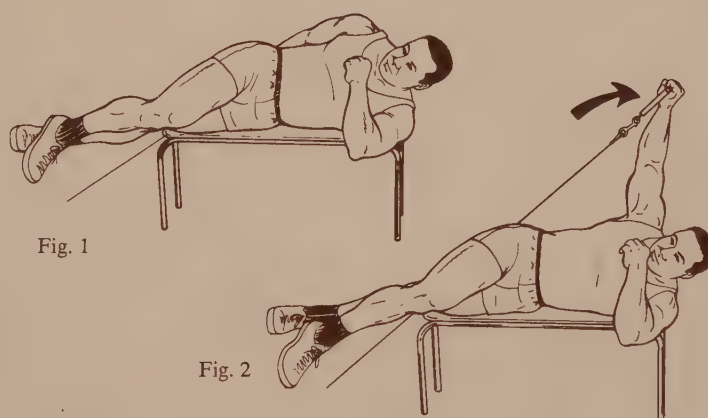
LYING FLOOR LOW PULLEY DELTOID RAISE

Outer deltoids



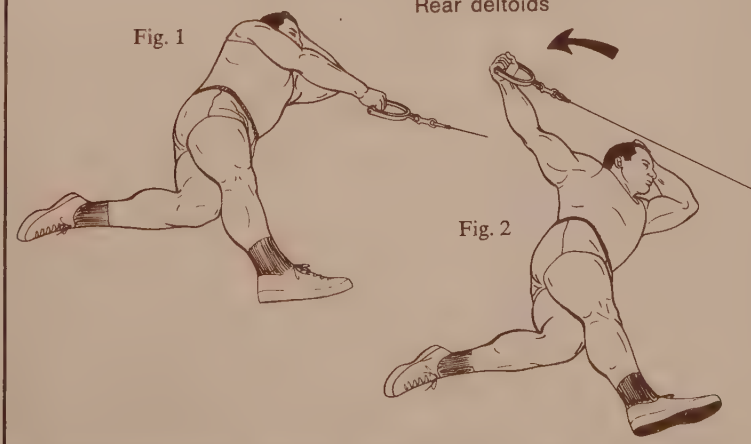
LYING LOW PULLEY FRONT DELTOID RAISE

Outer deltoids



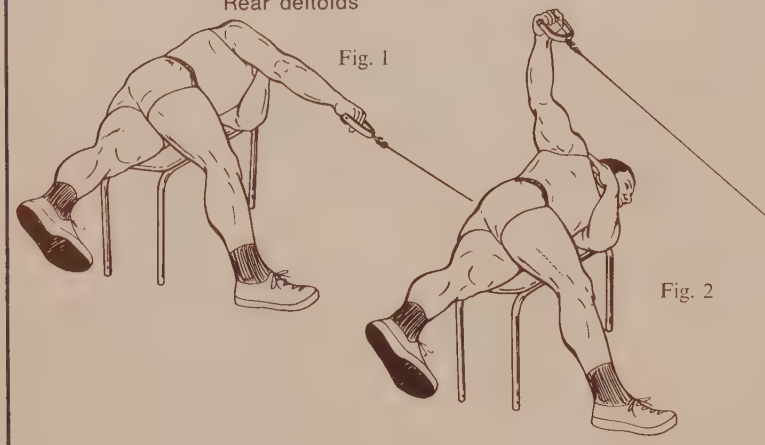
LYING FLOOR LOW PULLEY ACROSS BODY REAR DELTOID RAISE

Rear deltoids



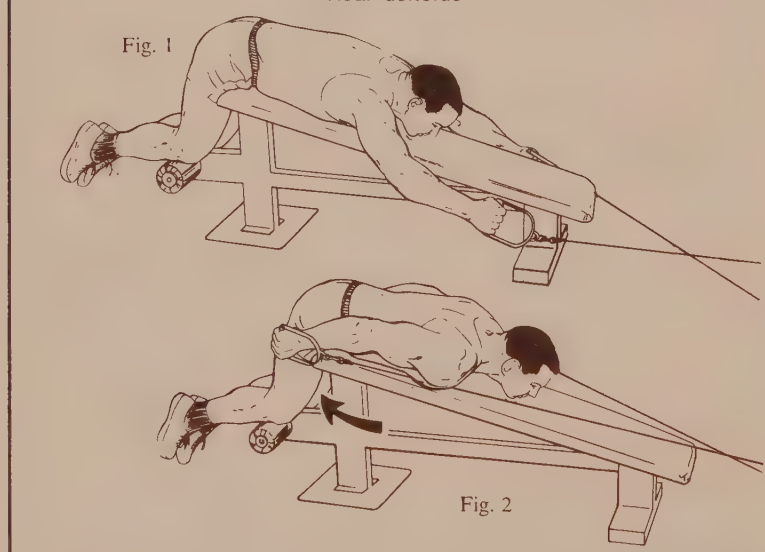
LYING LOW PULLEY ACROSS BODY REAR DELTOID RAISE

Rear deltoids



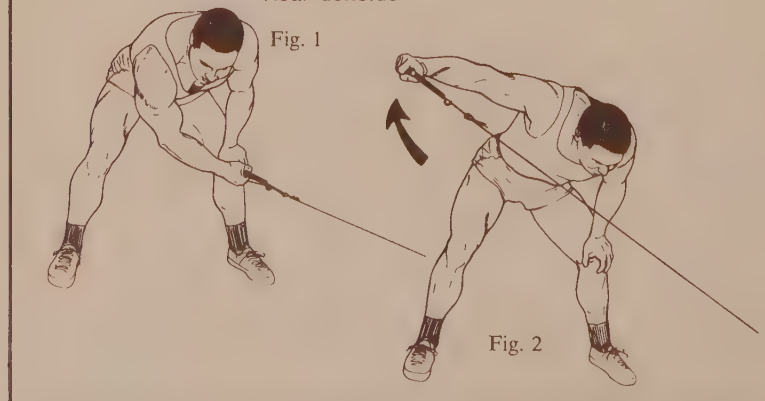
LYING DECLINE LOW PULLEY REAR DELTOID CIRCLE

Rear deltoids



BENT OVER LOW PULLEY SIDE LATERAL

Rear deltoids



throughout a full range of motion. Grasp the low pulley cable handle with your right hand and lie with your left side on the bench with your legs apart to help balance your upper body. With your right arm out in front of you and in line with your shoulders, inhale and raise your arm in a semicircular motion to a vertical position above your right shoulder. Be sure your right arm is held straight and kept in line with your shoulder. Exhale as you lower the weight back to starting position. Do the prescribed number of repetitions on the right side and then change positions, doing the same number on the left side.

■ Lying Decline Low Pulley Rear Deltoid Circle

Place the lower end of a decline bench in front of a low wall pulley. Have the bench back far enough to enable your arms to support both weight stacks as you lie face forward on the bench from your waist up. Grasp the left lower cable handle with your right hand and the right lower cable handle with your left hand to cross the cables. With your arms extended directly out in front of you with your elbows locked out and the palms of your hands facing each other, inhale and pull back on the handles in a semicircular motion until your arms are directly to your sides. Return to starting position and exhale.

■ Bent Over Low Pulley Side Lateral

Grasp the lower pulley cable handle of a low wall pulley with your right hand and then step back far enough away from the machine to support the weight stack as you turn your left side to the machine and bend at the waist until your upper body is parallel with the floor. Your legs should be slightly bent and your right arm hanging down from your right shoulder with your left hand on your lower left thigh to help support your upper body. Inhale and raise your arm up in a semicircular motion, keeping your elbow locked, until it is parallel with the floor. Your right hand should be in line with your right ear at the top position. Lower the weight to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

▲ Standing Low Pulley Straight Arm Front Bar Raise

Place a short bar on the two low pulley cables of a wall pulley machine. Grasp the bar with both hands, palms facing down,

and step back far enough away from the pulley so you are supporting the weight stacks with your hands in front of you. Keep your back straight and your arms locked out with your feet about sixteen inches apart. Inhale and pull the cables up in a semicircular motion, keeping your arms straight and your elbows locked out, until the bar is overhead at arm's length. Lower the bar back to starting position in the same semicircular motion it was raised and exhale.

■ Incline Low Pulley Rear Deltoid Raise

Place an incline bench in front of a wall pulley with the tall end of the bench closest to the machine. Grasp the low pulley handle with your right hand and lie on your left side on the incline bench. Your right hand holding the pulley handle should be behind you and the hand about even with your left buttocks. Keeping your elbow locked and the arm straight, inhale and raise the cable in a semicircular motion straight up until your hand is above your shoulder at arm's length. Then lower the cable to starting position and exhale. You must do both arms to constitute a set.

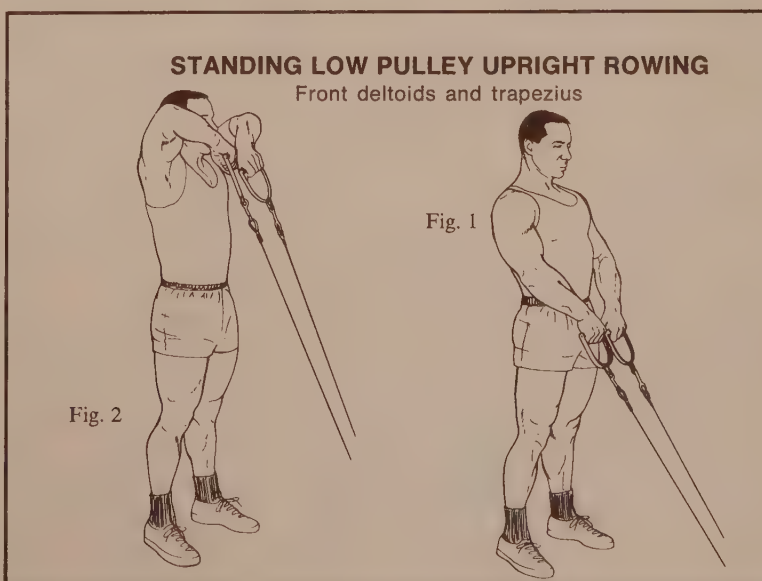
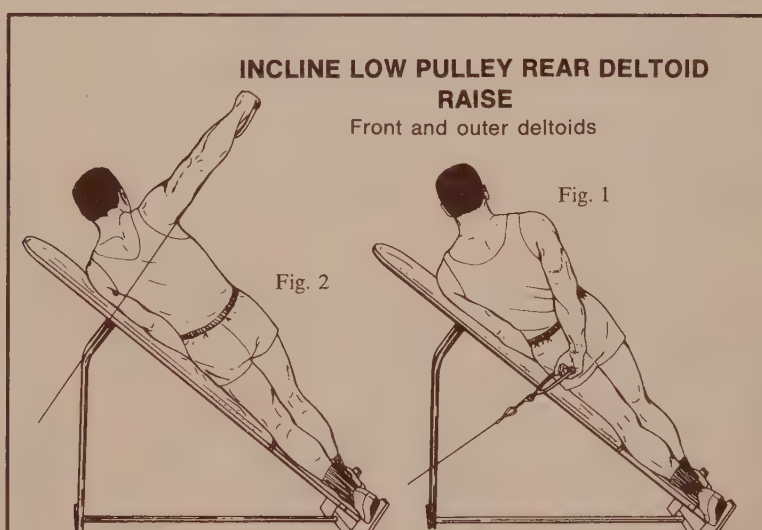
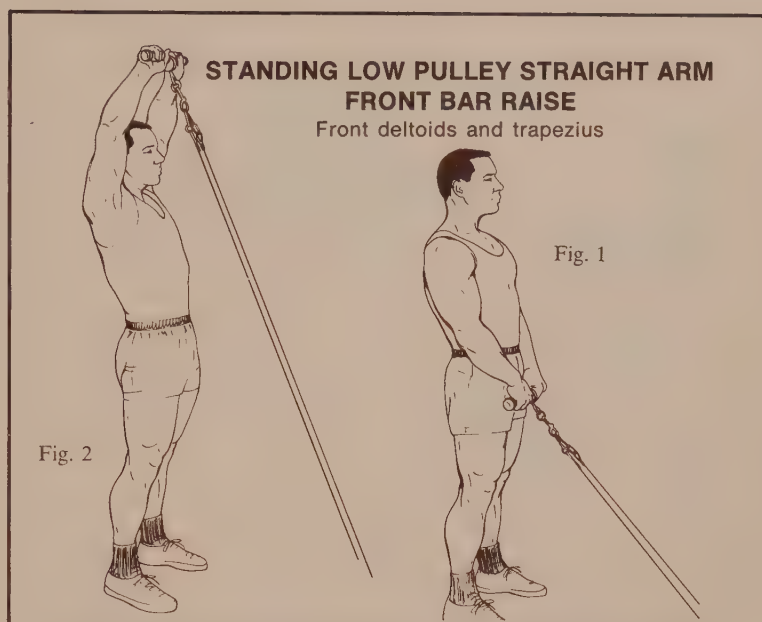
▲ Incline Low Pulley Front Deltoid Raise

Front and outer deltoids

Place an incline bench in front of a wall pulley with the tall end of the bench closest to the machine. Grasp the low pulley handle and lie on your side on the incline bench. The arm holding the pulley handle should be held across your body about even with your upper thigh. Keeping the elbow locked and the arm straight, inhale and raise the cable in a semicircular motion straight up until your hand is above your shoulder at arm's length. Then lower the cable to starting position and exhale. You must do both arms to constitute a set.

▲ Standing Low Pulley Upright Rowing

Grasp the low pulley handles of a wall pulley machine with both hands, palms facing down, and step back far enough away from the pulley so you are supporting the weight stacks with your hands in front of you. Keep your back straight and your arms locked out with your feet about sixteen inches apart. Inhale and pull the cables up with your shoulder muscles by raising your arms and bending your elbows. At the top position your elbows should be about even with the top of your head and your hands in line with your chin. Lower the weight stacks back to starting position and exhale.



SEATED BACK SUPPORTED HIGH PULLEY REAR DELTOID LATERAL PULL

Rear deltoids

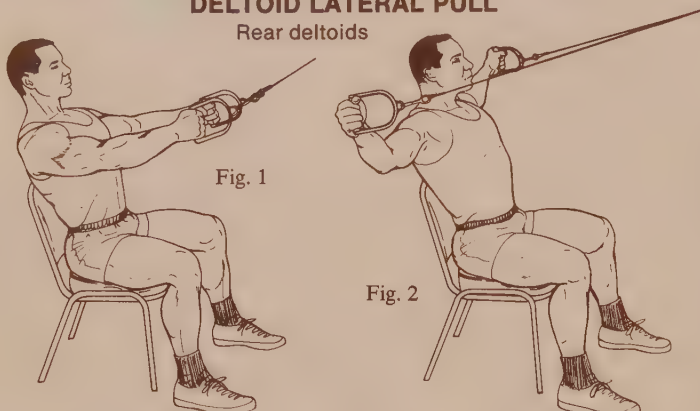


Fig. 1

Fig. 2

STANDING HIGH PULLEY REAR DELTOID LATERAL PULL

Rear deltoids

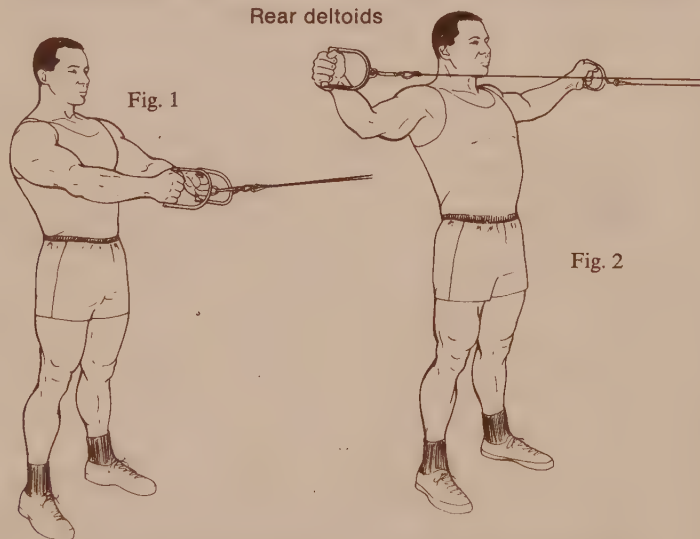


Fig. 1

Fig. 2

SEATED HIGH PULLEY REAR DELTOID LATERAL PULL

Rear deltoids

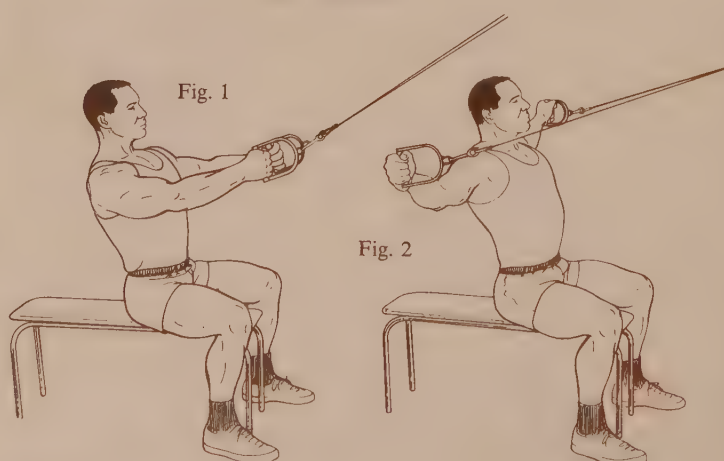


Fig. 1

Fig. 2

▲ Seated Back Supported High Pulley Rear Deltoid Lateral Pull

Using a wall pulley that has handles at the top, sit on a back supported chair facing the machine. Be sure the chair is far enough away from the machine so you can raise the weight stacks as you sit on the chair with your arms outstretched in front of you. Grasp the left handle with your right hand and the right handle with your left hand to cross the cables. With your arms locked out and straight, inhale and bring your arms back toward the outsides of your shoulders. Continue to keep your arms parallel and the elbows locked. Inhale as you commence the pull and exhale as you bring the weight stacks back to starting position.

▲ Standing High Pulley Rear Deltoid Lateral Pull

Using a wall pulley that has handles at the top, stand facing the machine. Grasp the left handle with your right hand and the right handle with your left hand to cross the cables. Step backwards until your arms are straight out in front of you and parallel with your shoulders. Step back far enough to cause enough tension on the cables to raise the weight stacks up. From this position, inhale and bring your arms back toward the outsides of your shoulders. Continue to keep the arms parallel and the elbows locked. Inhale as you commence the pull and exhale as you bring the weight stacks back to starting position.

▲ Seated High Pulley Rear Deltoid Lateral Pull

Using a wall pulley that has handles at the top, sit on a bench facing the machine. Be sure the bench is far enough away from the machine so you can raise the weight stacks as you sit on the bench with your arms outstretched in front of you. Grasp the left handle with your right hand and the right handle with your left hand to cross the cables. With your arms locked out and straight, inhale and bring your arms back toward the outsides of your shoulders. Continue to keep your arms parallel and the elbows locked. Inhale as you commence the pull and exhale as you bring the weight stacks back to starting position.

■ Lying Three Way Deltoid Raise

This is a combination of three different deltoid exercises. You perform all of the first

exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Lying Front Deltoid Raises
- #2 Lying Alternated Front Deltoid Raises
- #3 Lying Side Lateral Raises

■ Standing Three Way Deltoid Raise

Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Standing Front Deltoid Raises
- #2 Standing Alternated Front Deltoid Raises
- #3 Standing Side Lateral Raises

■ Seated Three Way Deltoid Raise

Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated Front Deltoid Raises
- #2 Seated Alternated Front Deltoid Raises
- #3 Seated Side Lateral Raises

■ Incline Three Way Deltoid Raise

Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Incline Front Deltoid Raises
- #2 Incline Alternated Front Deltoid Raises
- #3 Incline Side Lateral Raises

■ Seated Back Supported Three Way Deltoid Raise

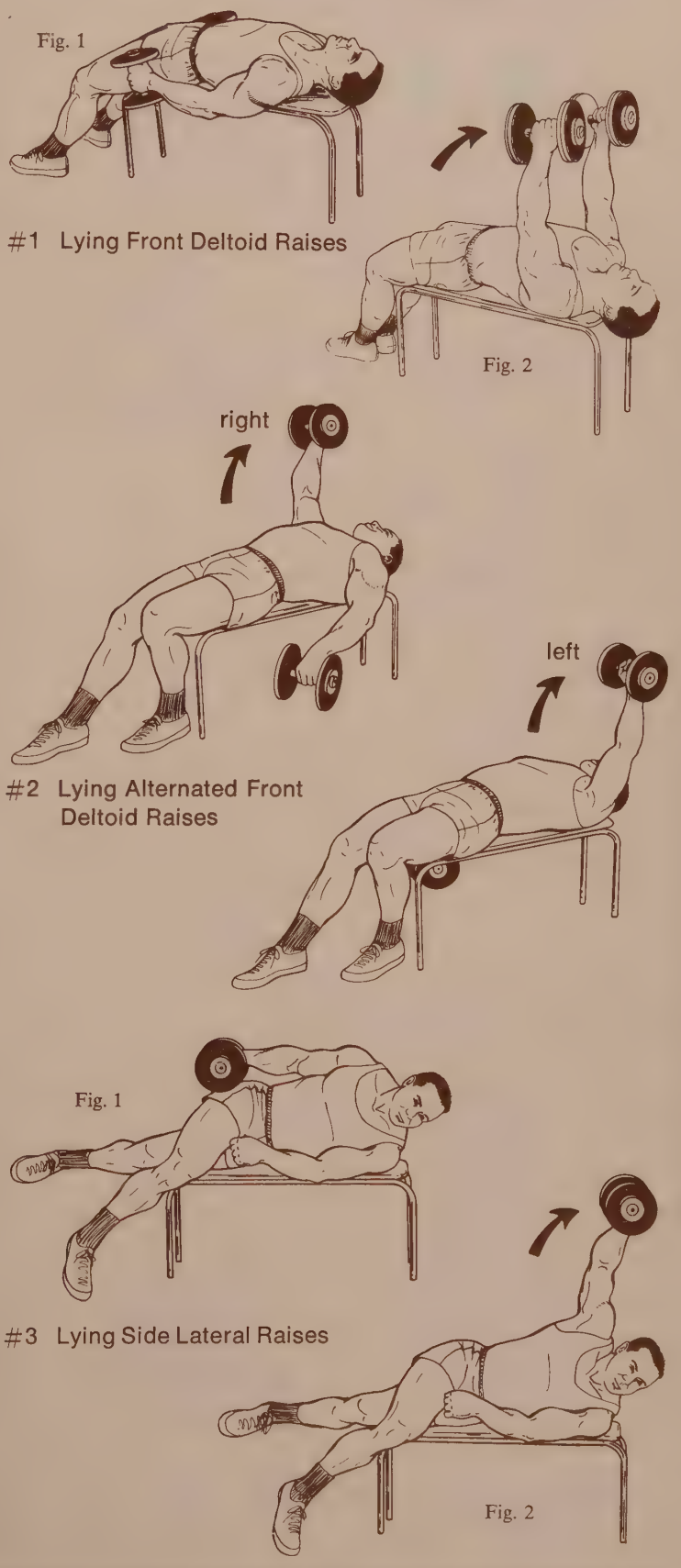
Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated Back Supported Front Deltoid Raises

LYING THREE WAY DELTOID RAISE

Front deltoids



SEATED LOW PULLEY FACING AWAY THREE WAY DELTOID RAISE

Front and side deltoids

Fig. 1

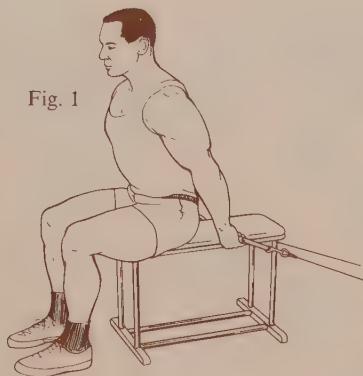
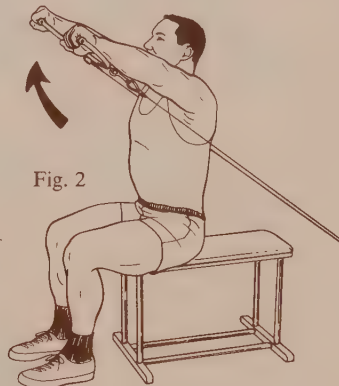
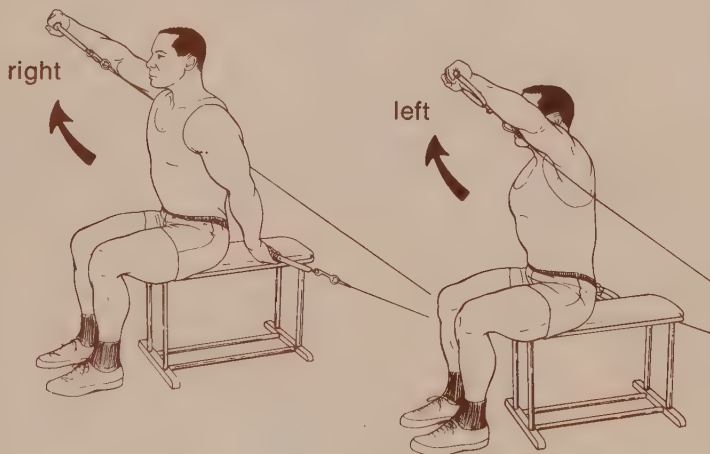


Fig. 2



#1 Seated Low Pulley Facing Away Front Deltoid Raises



#2 Seated Low Pulley Facing Away Alternated Front Deltoid Raises

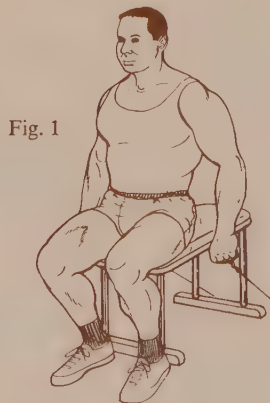
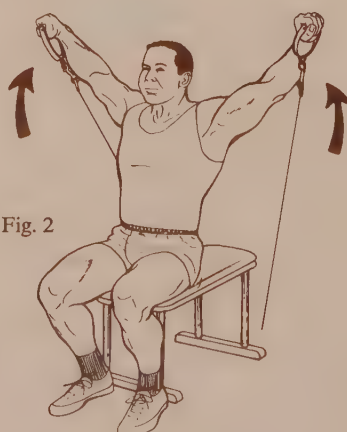


Fig. 1

Fig. 2



#3 Seated Low Pulley Facing Away Side Lateral Raises

- #2 Seated Back Supported Alternated Front Deltoid Raises
- #3 Seated Back Supported Side Lateral Raises

■ Seated Low Pulley Facing Front Three Way Deltoid Raise

Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated Low Pulley Facing Front Front Deltoid Raises
- #2 Seated Low Pulley Facing Front Alternated Front Deltoid Raises
- #3 Seated Low Pulley Facing Front Side Lateral Raises

■ Seated Low Pulley Facing Away Three Way Deltoid Raise

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated Low Pulley Facing Away Front Deltoid Raises
- #2 Seated Low Pulley Facing Away Alternated Front Deltoid Raises
- #3 Seated Low Pulley Facing Away Side Lateral Raises

■ Low Pulley Facing Front Three Way Deltoid Raise

Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Low Pulley Facing Front Front Deltoid Raises
- #2 Low Pulley Facing Front Alternated Front Deltoid Raises
- #3 Low Pulley Facing Front Side Lateral Raises

■ Low Pulley Facing Away Three Way Deltoid Raise

Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the

first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Low Pulley Facing Away Front Deltoid Raises
- #2 Low Pulley Facing Away Alternated Front Deltoid Raises
- #3 Low Pulley Facing Away Side Lateral Raises

■ Seated Low Pulley Back Supported Facing Away Three Way Deltoid Raise

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated Back Supported Facing Away Front Deltoid Raises
- #2 Seated Back Supported Facing Away Front Alternated Deltoid Raises
- #3 Seated Back Supported Facing Away Side Lateral Raises

■ Seated Low Pulley Back Supported Facing Front Three Way Deltoid Raise

Front and side deltoids

This is a combination of three different deltoid exercises. You perform all of the first exercise and then immediately perform the entire second exercise before going on to the final exercise.

- #1 Seated Back Supported Facing Front Deltoid Raises
- #2 Seated Back Supported Facing Front Alternated Front Deltoid Raises
- #3 Seated Back Supported Facing Front Side Lateral Raises

▲ Standing Universal Upright Rowing

Place your hands on the bar of the Universal machine that is used for barbell curls. The palms will be down and the grip about six inches apart. Keep the body erect and stationary and pull the weight straight up until it is nearly under your chin. You must keep your elbows out to the sides and in the top position your elbows will be nearly as high as your ears. Keep the bar in close to your body and pause momentarily at the top. Concentrate as you lower the bar to starting position. Inhale up and exhale down.

SEATED LOW PULLEY BACK SUPPORTED FACING AWAY THREE WAY DELTOID RAISE

Front and side deltoids

- #1 Seated Back Supported Facing Away Front Deltoid Raises

Fig. 1

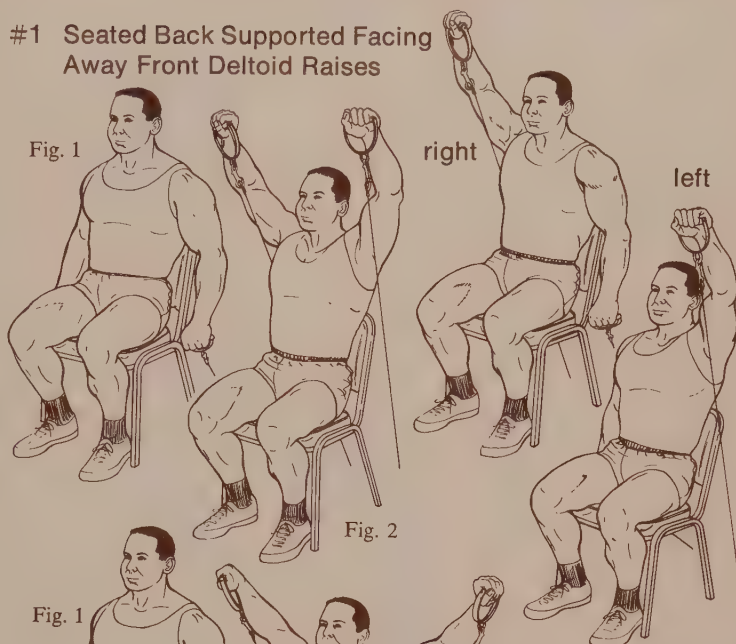


Fig. 2

Fig. 1

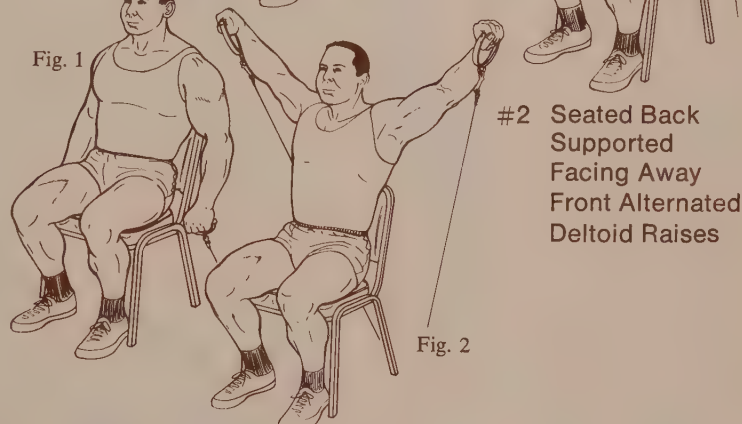


Fig. 2

- #3 Seated Back Supported Facing Away Side Lateral Raises

STANDING UNIVERSAL UPRIGHT ROWING

Front deltoids and trapezius

Fig. 1

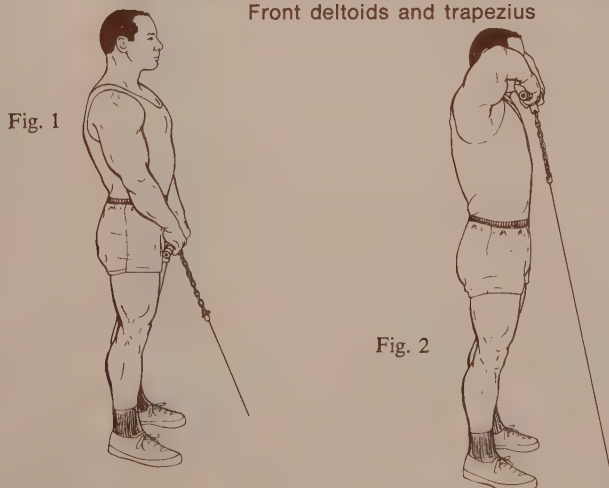


Fig. 2

Introduction to Back Section

The back is made up of muscle groups known as the trunk extensors. Their purpose is to maintain an erect posture by stabilizing the back half of the trunk. There are numerous muscles involved in this function. In order to simplify their function I shall categorize them under one main grouping known as the erector spinae (sacro-spinalis). Their main purpose is to extend the spinal column, drawing the ribs downward. This aids in fixing the ribs during forced expiration and aids in elevation of the pelvis.

Trunk extension or straightening of the back occurs mostly in the lower back. It is the most powerful movement of the trunk and, therefore, extremely important in athletics. Trunk extension is used in almost every type of athletic activity including football blocking and tackling, hurdling, weight lifting, wrestling, swimming, dance, shot put and discus throwing.

Weakness of the back muscles may cause an inability to hold an upright posture, therefore allowing the shoulder and upper back to drop forward. If weakness is severe enough the ribs will move upward and a loss of lower back support and stability may occur. This will cause a decrease in the flexibility of the spine and therefore a decrease in forced expiration.

The muscles of the lower back are large and extremely strong. If the athlete has not properly conditioned himself for his specific event or sport he may be more susceptible to injury.

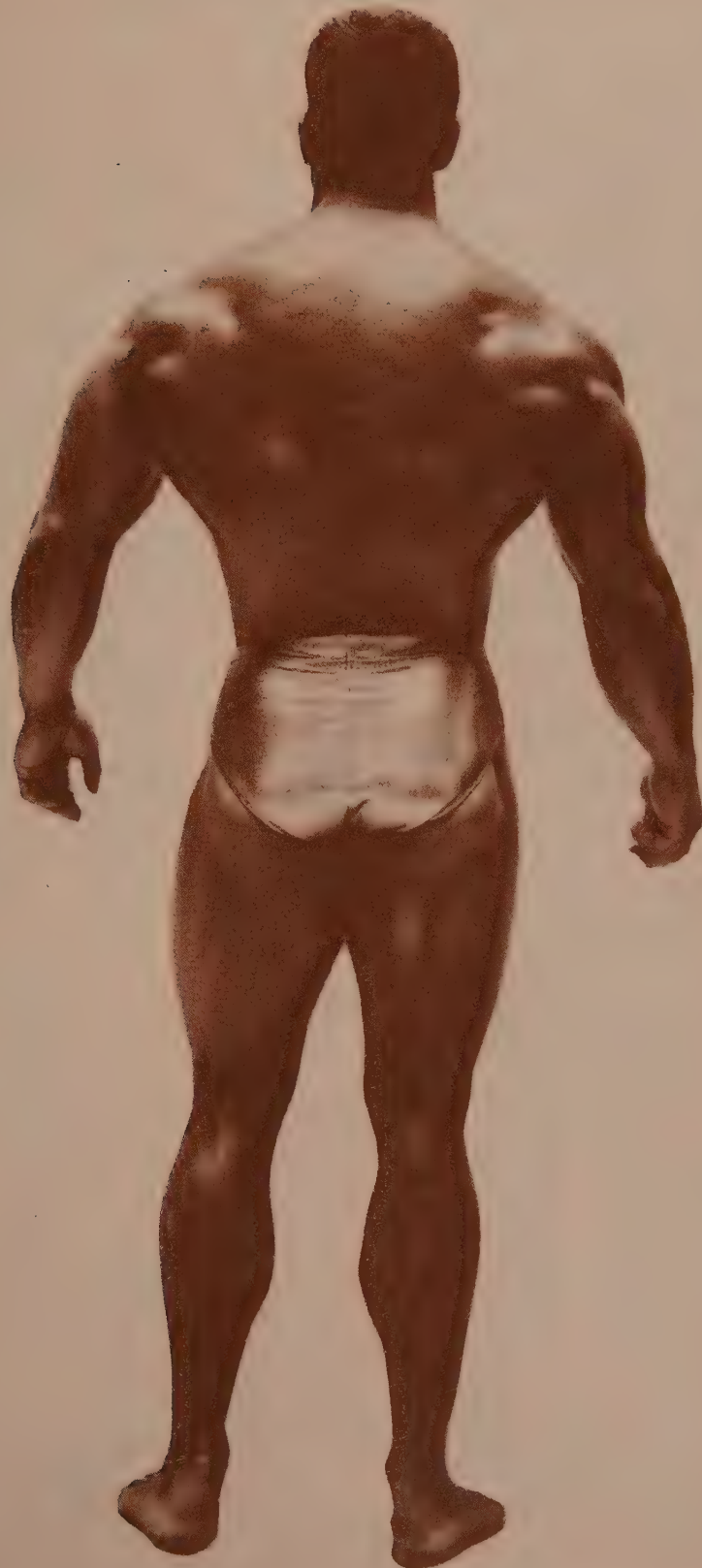
Injuries to the back are common as a result of increased range of motion. These injuries include

hyperextension, hyperflexion and rotation of the spine. Falls, blows, severe jerking movements and impacts are among a few of the traumas which immobilize the athlete. Instability of the low back causes a greater demand on the abdominal muscles because of a forward shift of the trunk posture and weight, increasing the likelihood of injury to not only the trunk but also the feet, ankles, shins, knees and pelvis. This change in weight distribution affects the biomechanics of the body, causing undue stress in areas which are not designed to handle the work load efficiently.

The incidence of injury to the back is high in most contact sports including football, wrestling, judo and other activities which require extension and flexion movements of the back. This is also true in aerobic activities such as snow skiing, running, diving and gymnastics. In weight training, the snatching and jerking of a weight if improperly performed can cause an unstable stance, resulting in the shift of the center of gravity to the lifter, therefore, predisposing him to greater injury. Body weight distribution must be considered in all athletic endeavors in order to not only prevent injury but to enhance the performance of the athlete.

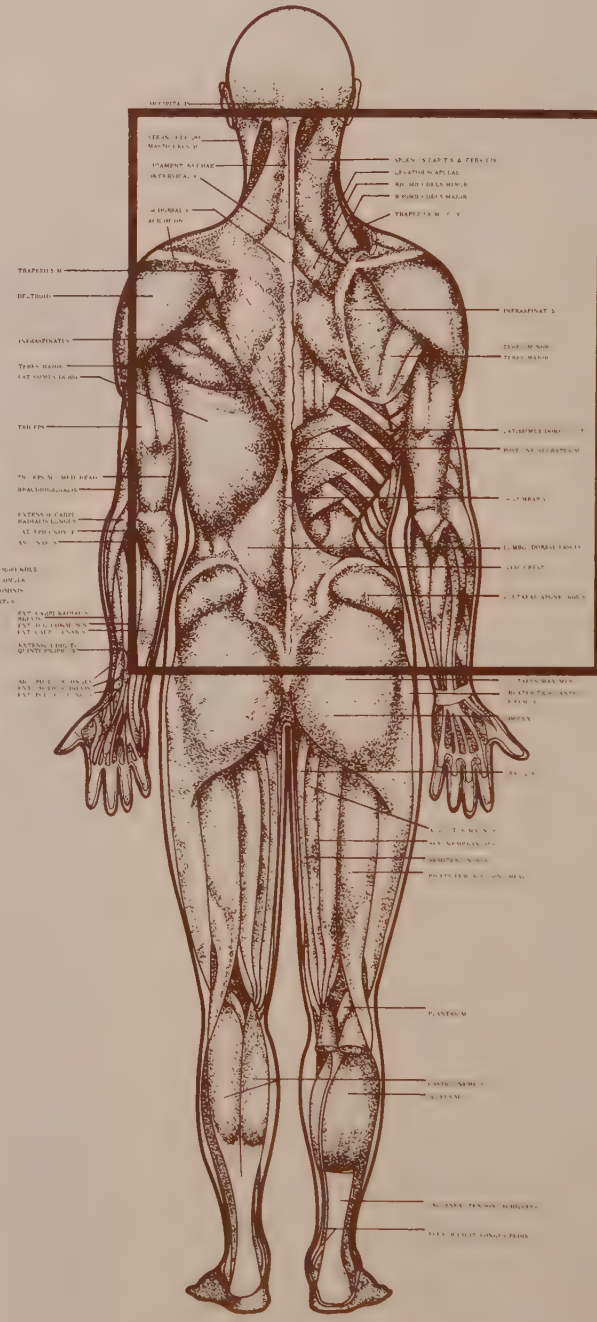
In order for the athlete to participate in a weight training program to enhance strength and endurance, it is extremely important to limber and warm up before any strenuous activity or event. Nearly any form of mid-section exercises such as barbell good mornings, sit-ups, leg raises, standing toe touches, etc., are considered extremely beneficial for this purpose.

Back section



A powerful looking back on a powerful looking man — PEARL.

BACK



Posterior View

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

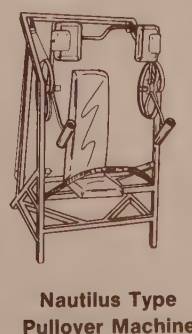
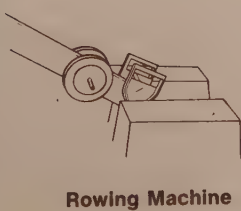
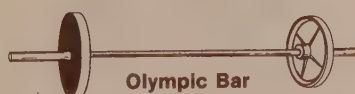
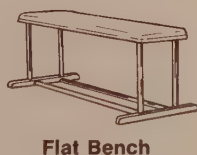
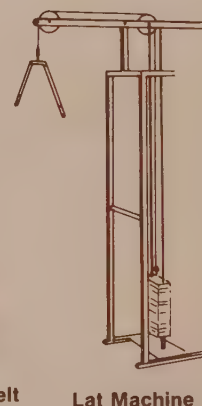
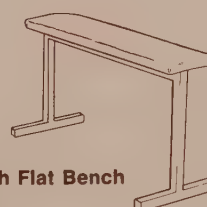
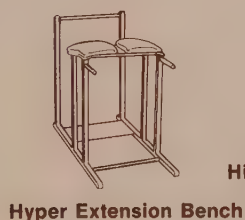
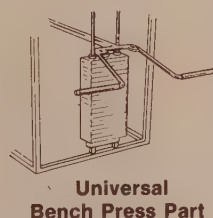
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

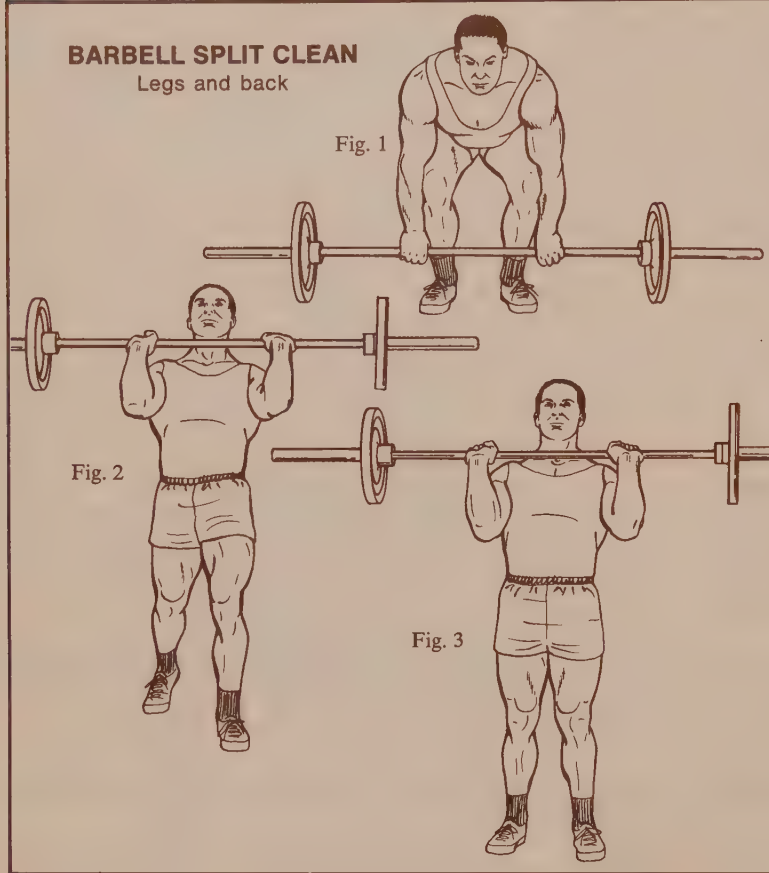
● Easy ▲ Intermediate ■ Difficult ★ Hard

EQUIPMENT NEEDED FOR BACK SECTION



BARBELL SPLIT CLEAN

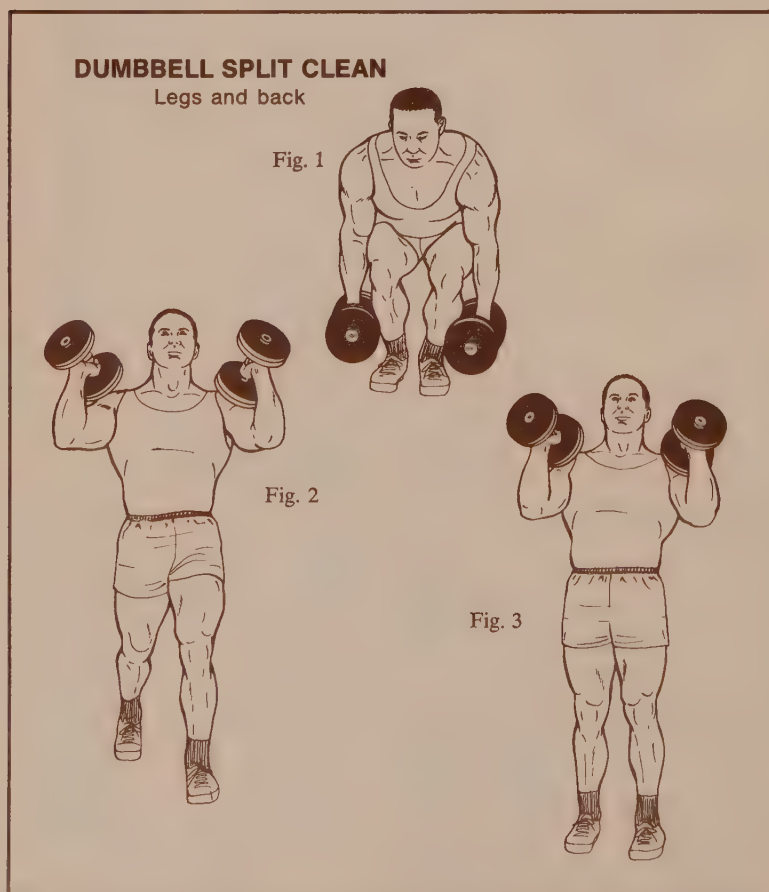
Legs and back

**■ Barbell Split Clean**

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. Continue the pull by raising up on your toes after you have come erect and have pulled the barbell about as high as your lower pectorals. Then throw your right leg straight back about thirty-two inches, trying not to bend your knee. Your left leg should travel straight to the front about eight inches, enabling you to lunge under the bar, catching it on the top of your upper chest by flipping the bar over and back with your wrists. From this position bring both feet in line with each other to complete the movement. Exhale as the bar reaches your upper chest. Return the bar to the floor and one repetition of the exercise is completed.

DUMBBELL SPLIT CLEAN

Legs and back

**■ Dumbbell Split Clean**

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you. Continue the pull upward by raising up on your toes after you have come erect and have pulled the dumbbells about as high as your lower pectorals. Then throw your right leg straight back about thirty-two inches trying not to bend your knee. Your left leg should travel straight in front about eight inches, enabling you to split down low enough to throw your body below the dumbbells and flipping them over and back with your wrists, having them come to rest in the palms of your hands which will be facing each other while your elbows are nearly at your sides. From this position bring both feet in line with each other to complete the movement. Exhale as the dumbbells are at the top position. Return the weights to the floor and one repetition of the exercise is completed.

■ Dumbbell Squat Clean

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Inhale and pull the dumbbells straight up slightly out in front of you as you commence to stand erect. When the dumbbells reach an area between your upper waist and middle chest, squat down below the dumbbells and then flip them over and back with your wrists, having them rest in the palms of your hands which will be facing each other while your elbows are slightly out in front of you. Stand erect with the dumbbells at shoulder height and exhale. Lower the weights directly to the floor to complete the movement.

■ BARBELL SQUAT CLEAN

Legs and back

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. When the bar reaches an area between your upper waist and middle chest, squat down, with your knees wide and feet flat, below the barbell and then flip the bar over and back with your wrists until it is resting on your upper chest. Keep your elbows out in front of you just below parallel and stand erect with the bar on your chest and exhale. Lower the weight directly to the floor to complete the movement.

▲ Barbell Power Clean

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you stand erect until the

DUMBBELL SQUAT CLEAN

Legs and back



Fig. 1



Fig. 2

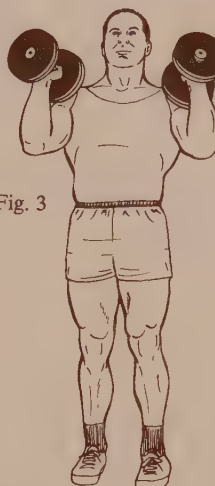


Fig. 3

BARBELL POWER CLEAN

Legs and back

Fig. 1

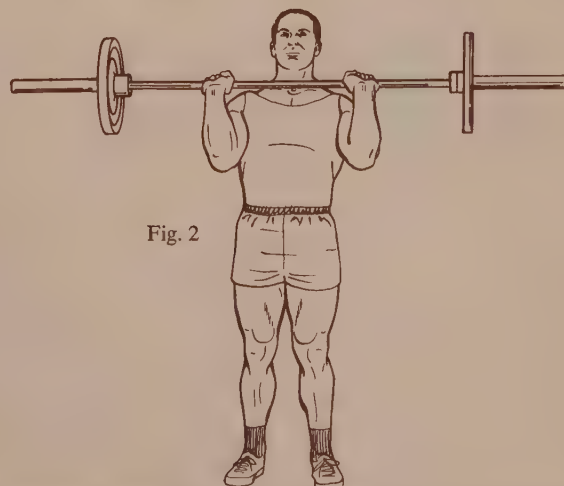
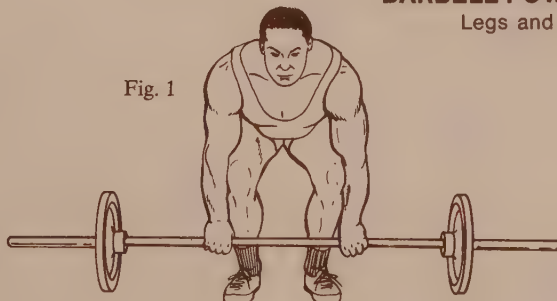
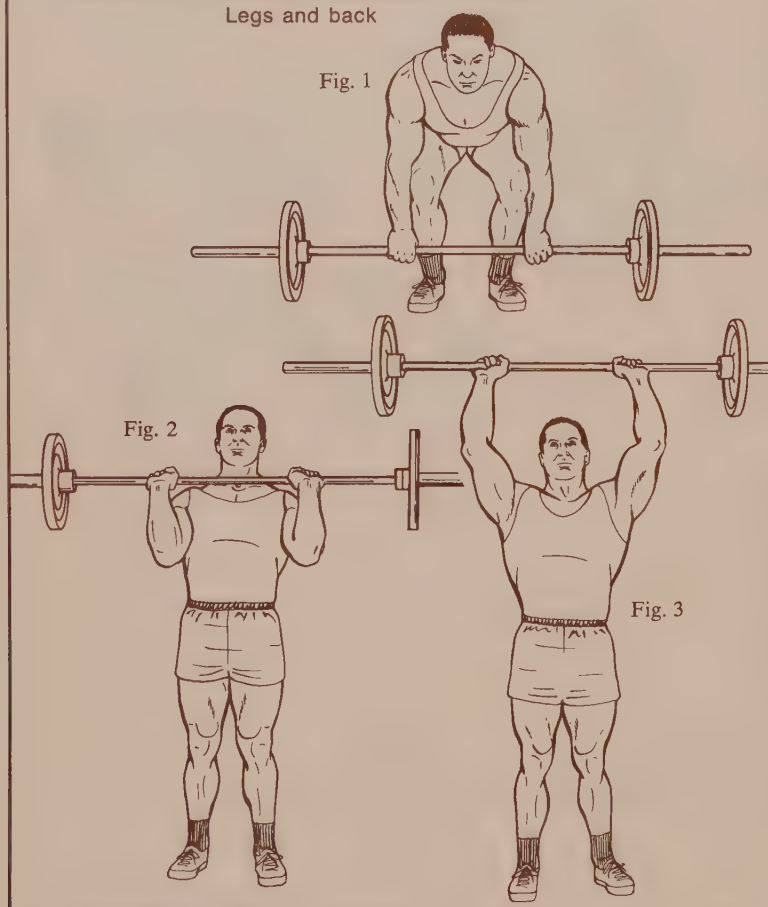


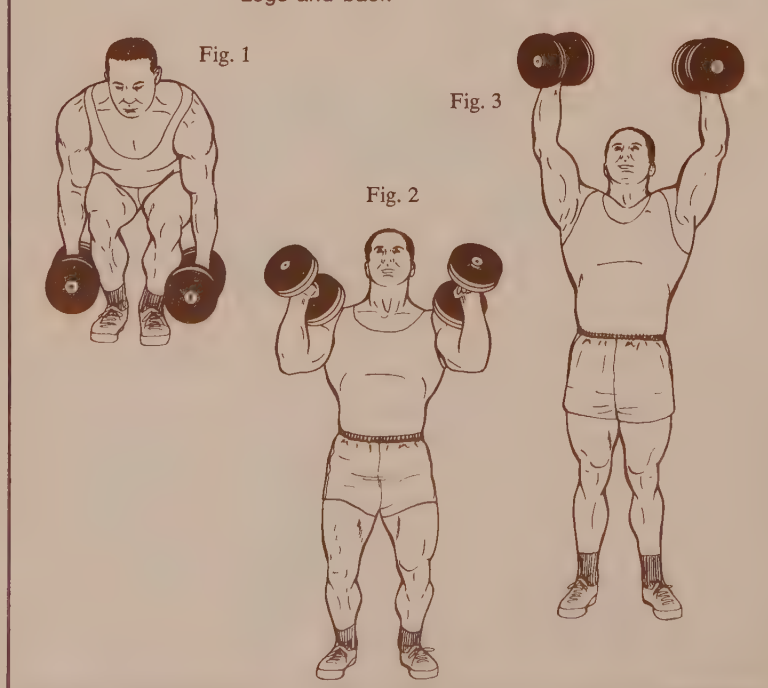
Fig. 2

BARBELL POWER CLEAN AND PRESS

Legs and back

**DUMBBELL POWER CLEAN AND PRESS**

Legs and back



bar is nearly as high as your shoulders. Then flip the bar over and back until it is resting on your upper chest. Return the bar to starting position and exhale.

▲ DUMBBELL POWER CLEAN

Legs and back

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you until they are nearly shoulder high. Then flip the dumbbells over and back, having them rest in the palms of your hands which will be facing each other while your elbows are nearly at your sides. Return the dumbbells to starting position by reversing the order and exhale.

■ Barbell Power Clean and Press

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you stand erect until the bar is nearly as high as your shoulders. Then flip the bar over and back until it is resting on your upper chest and exhale. Inhale again and press the barbell directly overhead to arm's length and hold it there for a short period of time before exhaling and letting it back to your upper chest and on down to the floor to complete the repetition.

■ Dumbbell Power Clean and Press

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you until they are nearly shoulder high. Then flip the

dumbbells over and back, having them rest in the palms of your hands which will be facing each other while your elbows are nearly at your sides. Inhale again and press the dumbbells directly overhead to arm's length and hold them there for a short period of time before exhaling and then lowering them back to shoulder height and on down to the floor to complete the repetition.

■ Dumbbell Split Clean and Press

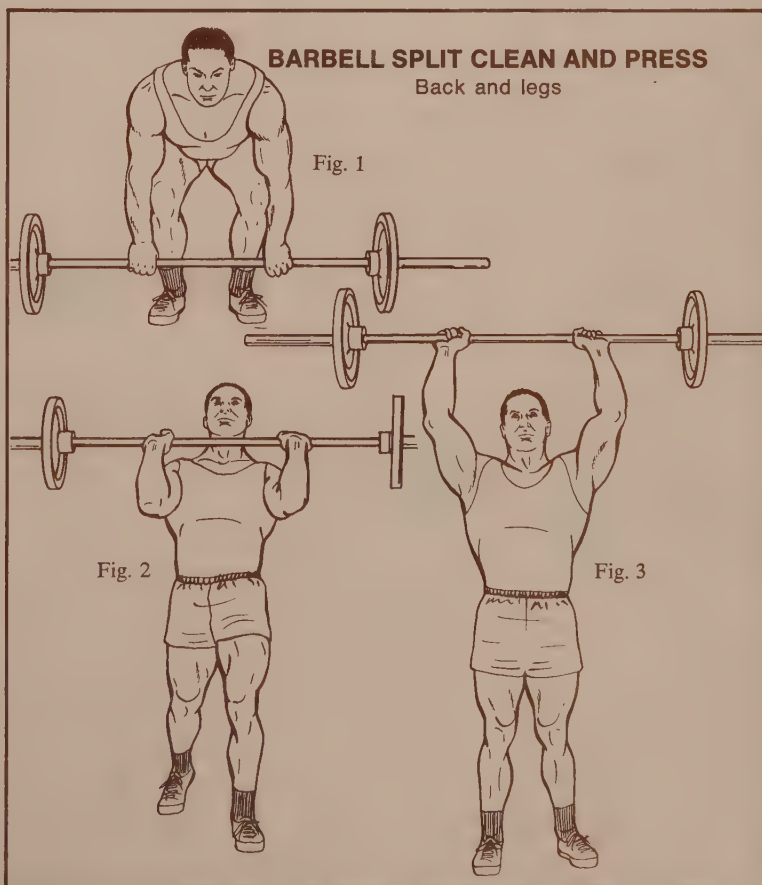
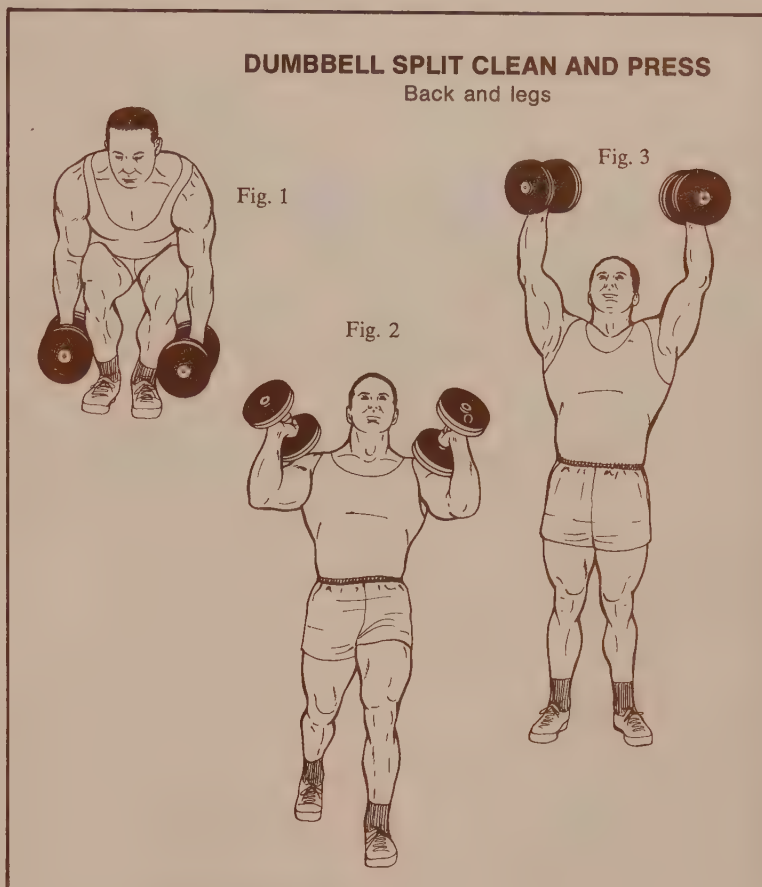
With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you. Continue the pull upward by raising up on your toes after you have come erect and have pulled the dumbbells about as high as your pectorals. Then throw your right leg straight back about thirty-two inches, trying not to bend your knee. Your left leg should travel straight in front about eight inches, enabling you to split down low enough to throw your body below the dumbbells and flipping them over and back with your wrists, having them come to rest in the palms of your hands which will be facing each other while your elbows are nearly at your sides. From this position bring both feet in line with each other to complete the split clean. Inhale again and press the dumbbells directly overhead to arm's length and hold them there for a short period of time before exhaling and then letting them back to shoulder height and on down to the floor to complete the repetition.

■ Barbell Split Clean and Press

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. Continue the pull by raising up on

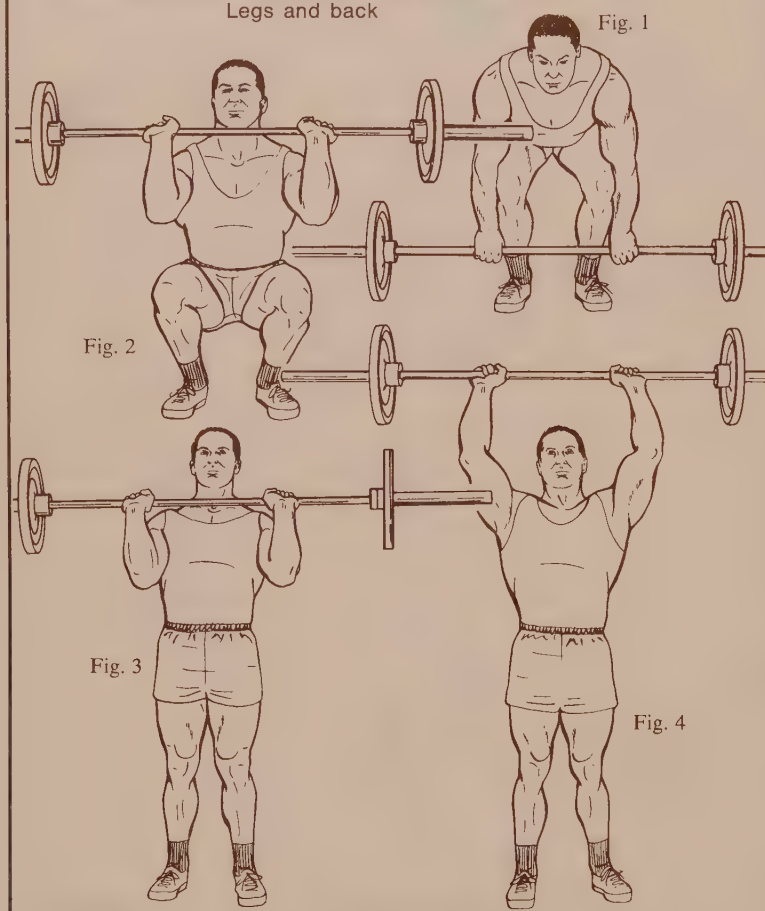
DUMBBELL SPLIT CLEAN AND PRESS

Back and legs



BARBELL SQUAT CLEAN AND PRESS

Legs and back



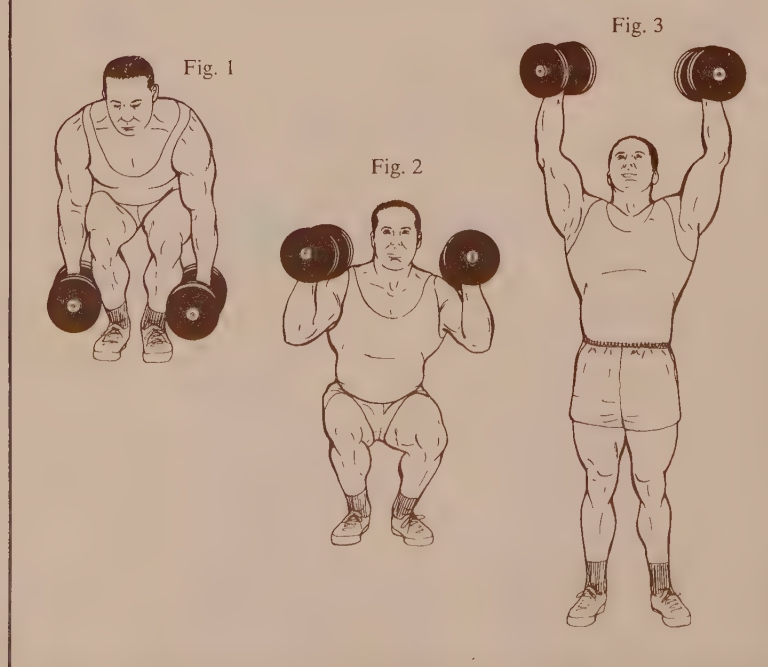
your toes after you have come erect and have pulled the barbell about as high as your lower pectorals. Then throw your right leg straight back about thirty-two inches, trying not to bend your knee. Your left leg should travel straight to the front about eight inches, enabling you to lunge under the bar, catching it on the top of your upper chest by flipping the bar over and back with your wrists. From this position bring both feet in line with each other to complete the split clean. Inhale again and press the barbell directly overhead to arm's length and hold it there for a short period of time before exhaling and then letting it back to your upper chest and on down to the floor to complete the repetition.

■ Barbell Squat Clean and Press

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. When the bar reaches an area between your upper waist and middle chest, squat down, with your knees wide and feet flat, below the barbell and then flip the bar over and back with your wrists until it is resting on your upper chest. Keep your elbows out in front of you just below parallel and stand erect with the bar on your chest and exhale. Inhale again and press the barbell directly overhead to arm's length and hold it there for a short period of time before exhaling and then letting it back to your upper chest and on down to the floor to complete the repetition.

DUMBBELL SQUAT CLEAN AND PRESS

Legs and back

**■ Dumbbell Squat Clean and Press**

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Inhale and pull the dumbbells straight up slightly out in front of you as you commence to stand erect. When the dumbbells reach an area between your upper waist and middle chest, squat down be-

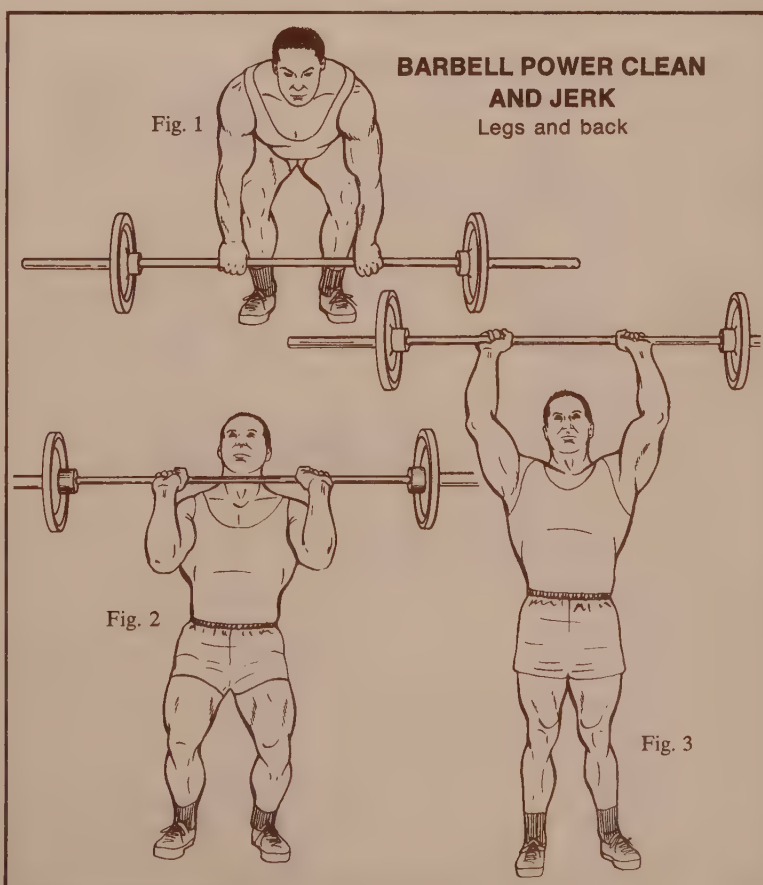
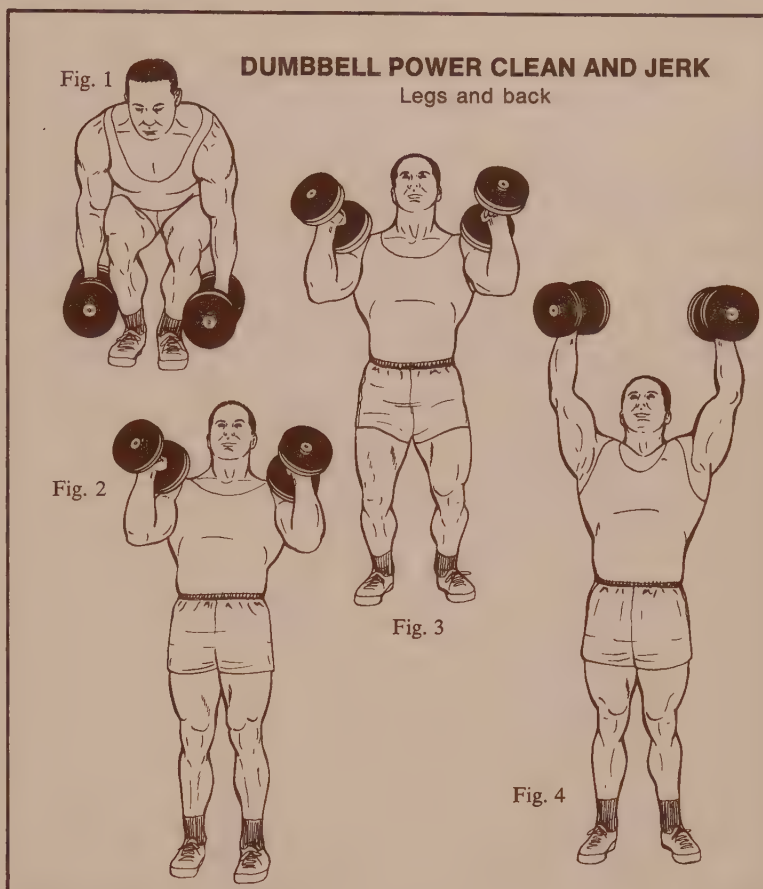
low the dumbbells and then flip them over and back with your wrists, having them rest in the palms of your hands which will be facing each other while your elbows are slightly out in front of you. Stand erect with the dumbbells at shoulder height and exhale. Inhale again and press the dumbbells directly overhead to arm's length and hold them there for a short period of time before exhaling and then lowering them back to shoulder height and on down to the floor to complete the repetition.

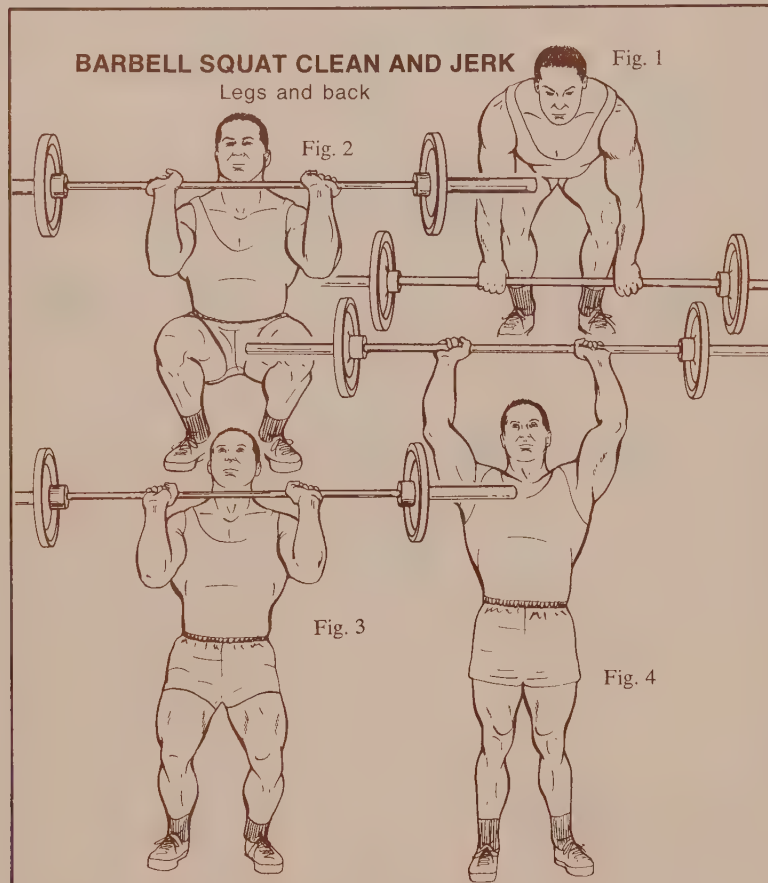
■ Dumbbell Power Clean and Jerk

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you until they are nearly shoulder high. Then flip the dumbbells over and back, having them rest in the palms of your hands which will be facing each other while your elbows are nearly at your sides. Inhale again and squat down about twelve inches, keeping your back straight and your elbows forward. With the power from your legs and back thrust the dumbbells overhead to arm's length, locking out the weights and holding them there and exhaling. From this position lower the dumbbells to shoulder height and then to the floor to complete the repetition.

■ Barbell Power Clean and Jerk

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the barbell with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you stand erect until the bar is nearly as high as your shoulders. Then flip the bar over and back until it is resting on your upper chest and exhale. Inhale again and squat down about twelve inches keeping your back straight and your elbows forward. With the power from your legs and back, thrust the barbell overhead to arm's

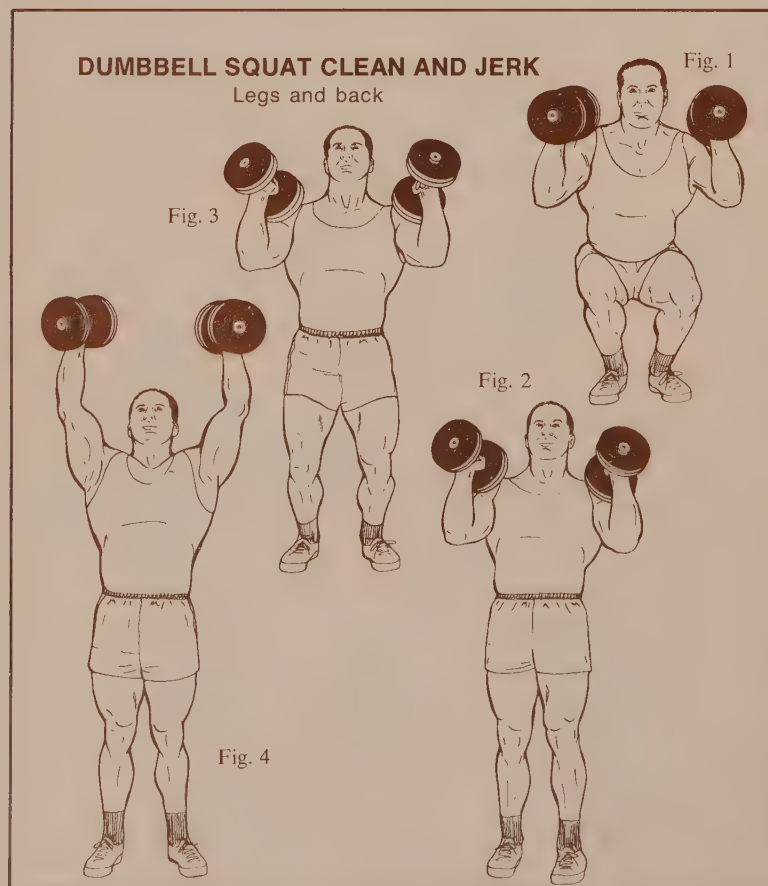




length, locking out the weight and holding it there and exhaling again. From this position lower the weight back to your upper chest and then to the floor to complete the repetition.

■ Barbell Squat Clean and Jerk

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. When the bar reaches an area between your upper waist and middle chest, squat down and then flip the bar over and back with your wrists until it is resting on your upper chest. Keep your elbows out in front of you just below parallel. Stand erect with the bar on your chest and exhale. Inhale again and squat down about twelve inches, keeping your back straight and your elbows forward. With the power from your legs and back, thrust the barbell overhead to arm's length, locking out the weight and holding it there and exhaling again. From this position lower the weight back to your upper chest and then to the floor to complete the repetition.



■ Dumbbell Squat Clean and Jerk

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Inhale and pull the dumbbells straight up slightly out in front of you as you commence to stand erect. When the dumbbells reach an area between your upper waist and middle chest, squat down below the dumbbells and then flip them over and back with your wrists, having them rest in the palms of your hands which will be facing each other while your elbows are slightly out in front of you. Stand erect with the dumbbells at shoulder height and exhale. Inhale again and squat down about twelve inches keeping your back straight and your elbows forward. With the power from your legs and back, thrust the dumb-

bells overhead to arm's length, locking out the weights and holding them there and exhaling. From this position, lower the dumbbells to shoulder height and then to the floor to complete the repetition.

■ Dumbbell Split Clean and Jerk

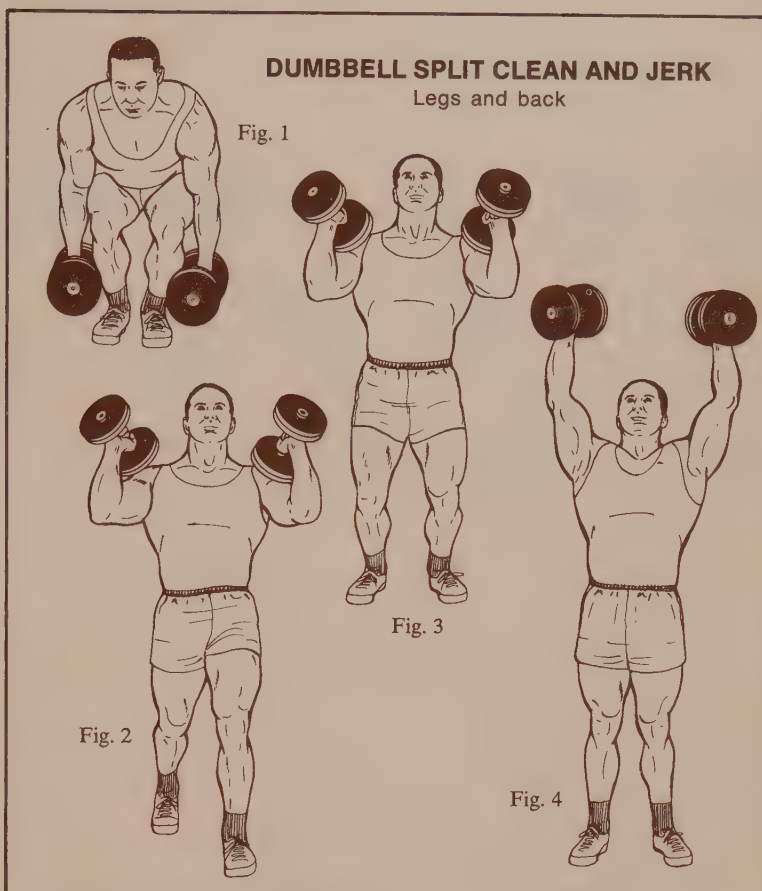
With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you. Continue the pull upward by raising up on your toes after you have come erect and have pulled the dumbbells about as high as your lower pectorals. Then throw your right leg straight back about thirty-two inches, trying not to bend your knee. Your left leg should travel straight in front about eight inches, enabling you to split down low enough to throw your body below the dumbbells and flipping them over and back with your wrists, having them come to rest in the palms of your hands which will be facing each other while your elbows are nearly at your sides. From this position bring both feet in line with each other to complete the split clean. Inhale again and squat down about twelve inches, keeping your back straight and your elbows forward. With the power from your legs and back thrust the dumbbells overhead to arm's length, locking out the weights and holding them there and exhaling. From this position lower the dumbbells to shoulder height and then to the floor to complete the repetition.

■ Barbell Split Clean and Jerk

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. Continue the pull by raising up on your toes after you have come erect and have pulled the barbell about as high as

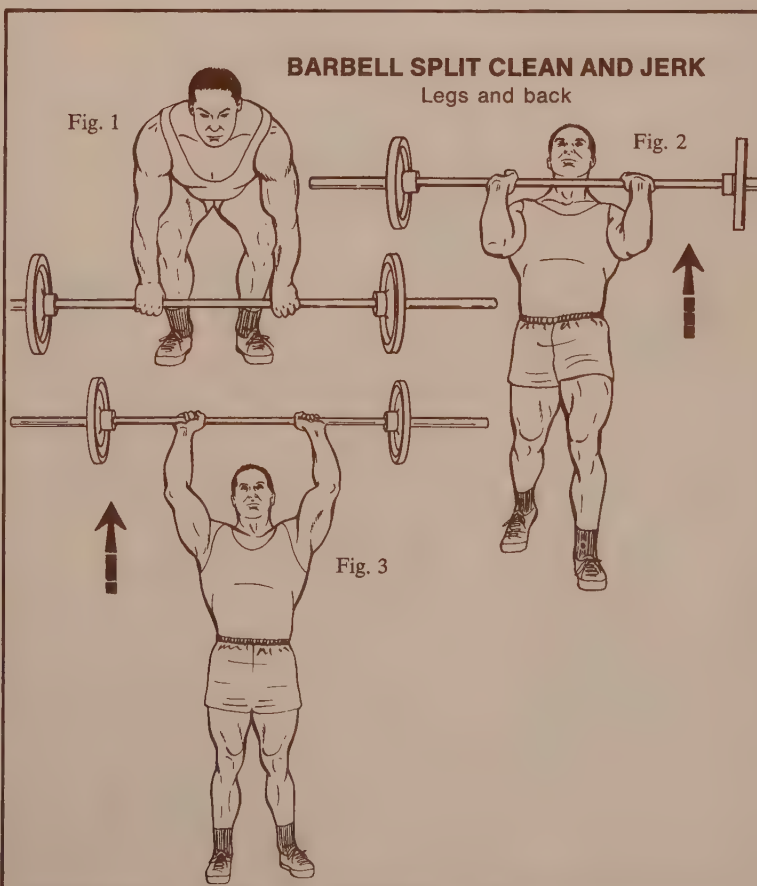
DUMBBELL SPLIT CLEAN AND JERK

Legs and back



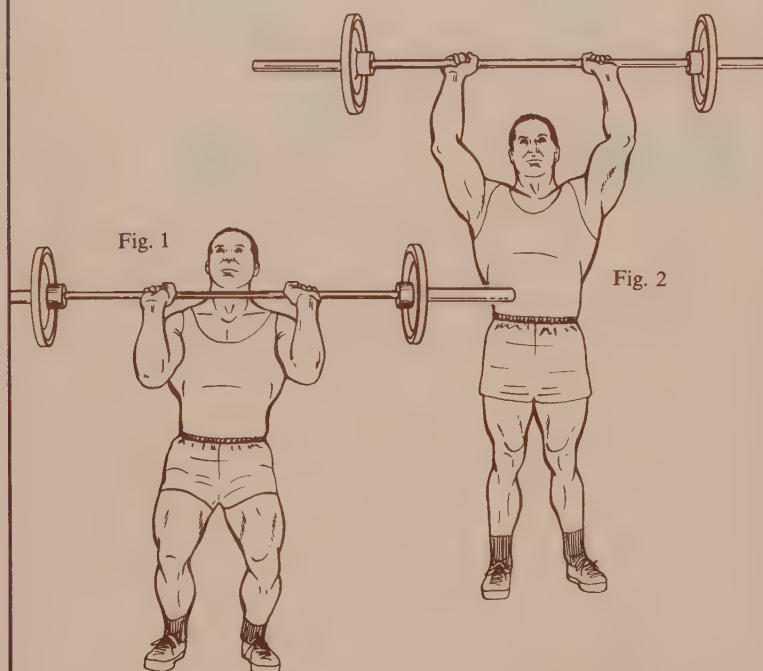
BARBELL SPLIT CLEAN AND JERK

Legs and back



BARBELL REPETITION POWER JERK

Back and legs



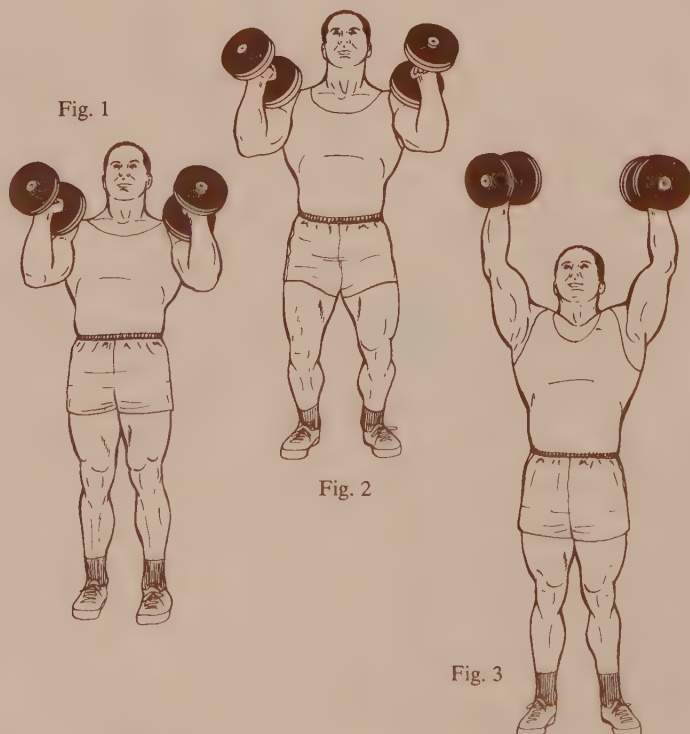
your lower pectorals. Then throw your right leg straight back about thirty-two inches, trying not to bend your knee. Your left leg should travel straight to the front about eight inches, enabling you to lunge under the bar, catching it on the top of your upper chest by flipping the bar over and back with your wrists. From this position bring both feet in line with each other and exhale. Inhale again and squat down about twelve inches, keeping your back straight and your elbows forward. With the power from your legs and back, thrust the barbell overhead to arm's length, locking out the weight and holding it there and exhaling. From this position lower the weight back to your upper chest and then to the floor to complete the repetition.

■ Barbell Repetition Power Jerk

Using about a twenty-six inch grip on a barbell, either clean the bar to the top of your upper chest or take the bar off of a rack and place it on your upper chest. Inhale and squat down about twelve inches keeping your back straight, elbows forward and head up. With the power from your legs and back, thrust the barbell directly overhead to arm's length, locking out the weight and holding it there a short period of time before lowering it back to your upper chest and exhaling.

DUMBBELL REPETITION POWER JERK

Back and legs

**■ Dumbbell Repetition Power Jerk**

Clean two dumbbells to the height of your shoulders and hold them there with the palms of your hands facing each other. Inhale and squat down about twelve inches keeping your back straight, elbows slightly raised and head up. With the power from your legs and back, thrust the dumbbells directly overhead to arm's length, locking out the weights and holding them there a short period of time before lowering them back to the height of your shoulders and exhaling.

■ Barbell Repetition Split Jerk

Legs and back

Using about a twenty-six inch grip on a barbell, either clean the bar to the top of your upper chest or take it off of a rack and place it on your upper chest. Inhale and squat down about twelve inches keeping your back straight, elbows forward and

head up. With the power from your legs and back, thrust the barbell directly overhead by throwing your right foot straight back about thirty-two inches and your left foot forward about eight inches to allow you to split under the weight as it is jerked overhead to arm's length, locking out the weight and holding it there a short period of time before lowering it back to the top of your upper chest and exhaling.

■ Dumbbell Repetition Split Jerk

Clean two dumbbells to the height of your shoulders and hold them there with the palms of your hands facing each other. Inhale and squat down about twelve inches, keeping your back straight, elbows slightly raised and head up. With the power from your legs and back, thrust the dumbbells directly overhead by throwing your right foot straight back about thirty-two inches and your left foot forward about eight inches to allow you to split under the weights as they are jerked overhead to arm's length, locking out the dumbbells and holding them there for a short period of time before lowering them back to shoulder height and exhaling.

■ Barbell Split Snatch

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands spaced about thirty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. Continue the pull until the barbell is directly overhead at arm's length with your elbows locked out by raising up on your toes after you have stood straight up and thrown your right foot straight back about thirty-two inches trying not to bend your knee. Your left foot should travel about eight inches in front of you, enabling you to lunge your body under the bar. This movement will cut down the height you must pull the bar to get it overhead. With your feet spread and the barbell at arm's length, bring your feet together to complete the split snatch. Lower the bar to your upper chest and then to the floor to complete the repetition.

DUMBBELL REPETITION SPLIT JERK

Back and legs

Fig. 1

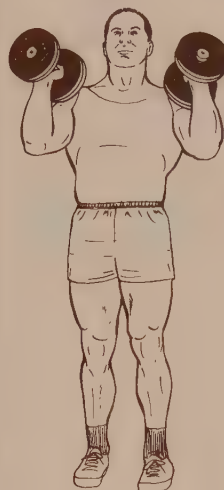
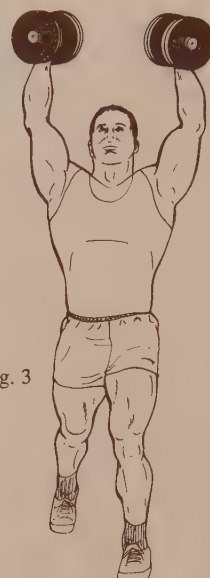


Fig. 2



Fig. 3



BARBELL SPLIT SNATCH

Legs and back

Fig. 1



Fig. 2

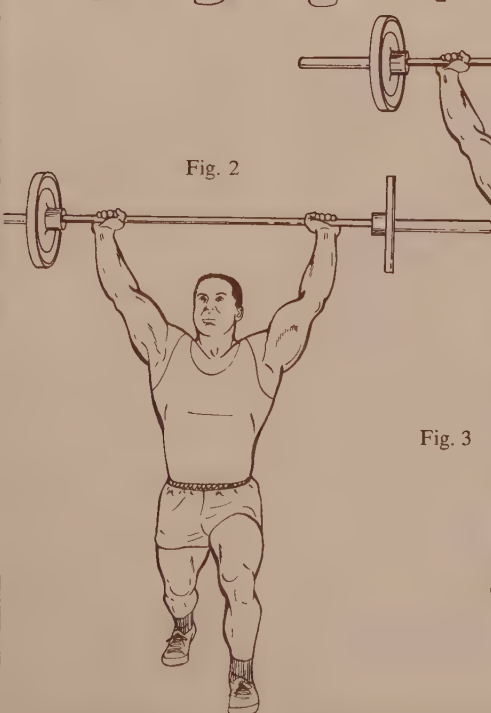
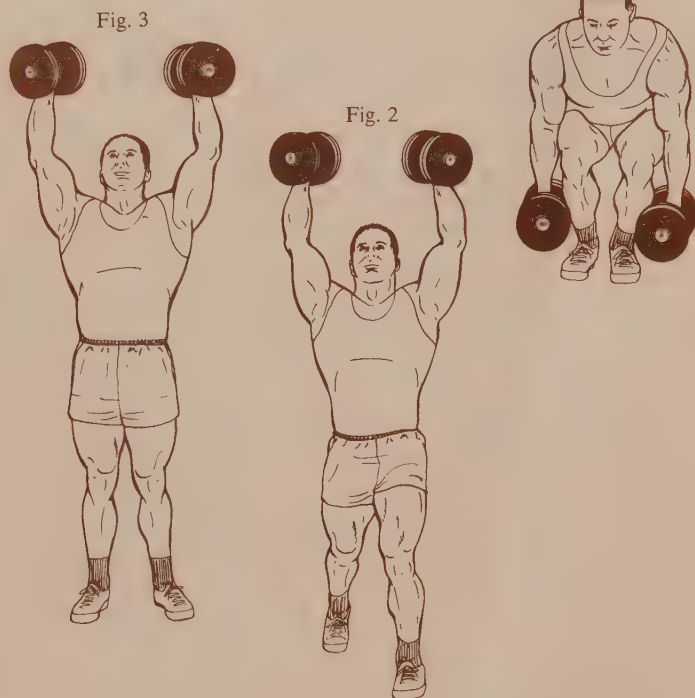


Fig. 3



DUMBBELL SPLIT SNATCH

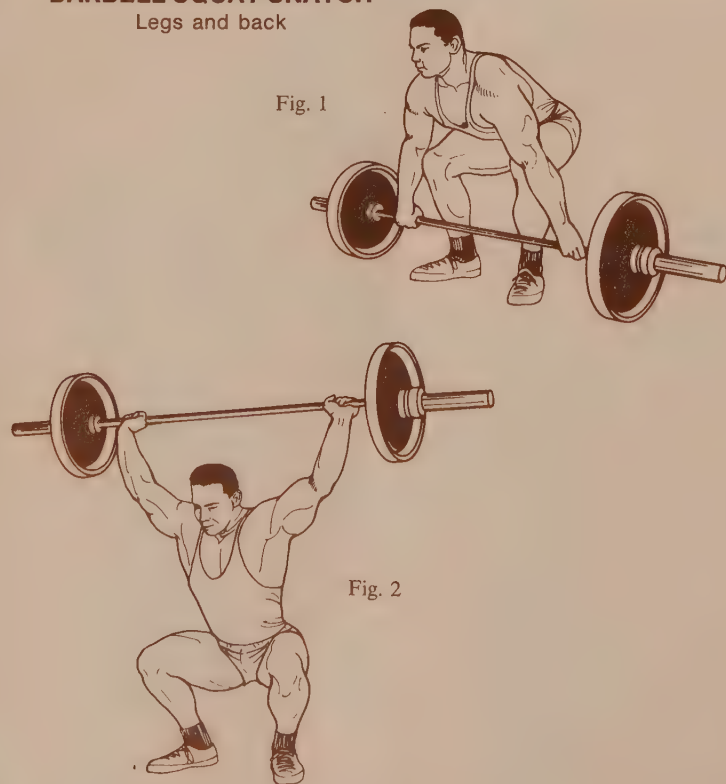
Legs and back

**■ Dumbbell Split Snatch**

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you. Continue the pull upward until the dumbbells are directly overhead at arm's length with your elbows locked out by raising up on your toes after you have come erect and have thrown your right leg straight back about thirty-two inches trying not to bend your knee. Your left leg should travel straight in front about eight inches, enabling you to split down low enough to throw your body below the dumbbells. This movement will help to cut down the height you have to pull the dumbbells to get them overhead in one motion. Exhale as the dumbbells reach the top. Lower the dumbbells back to shoulder height and on down to the floor to complete the repetition.

BARBELL SQUAT SNATCH

Legs and back

**■ Barbell Squat Snatch**

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. Continue the pull until the barbell is directly overhead at arm's length with your elbows locked out by bending your legs and squatting down, with your knees wide and feet flat. At the bottom position of the exercise you will find yourself in a squat position with the barbell directly overhead and your head pointing down to help balance the bar. Keeping the bar at arm's length, stand erect to complete the squat snatch. Lower the barbell to your upper chest and on down to the floor to complete the repetition.

■ Dumbbell Squat Snatch

With your feet about twelve inches apart, place a dumbbell at each outer side of

your ankles. Bend down and get a palms down grip on both dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Inhale and pull the dumbbells straight up slightly out in front of you. Continue the pull upward until the dumbbells are directly overhead at arm's length with your elbows locked out by bending your legs and squatting down with your knees wide and feet flat. This movement will help to cut down the height you have to pull the dumbbells to get them overhead in one motion. Exhale as the dumbbells reach the top. Lower the dumbbells back to shoulder height and on down to the floor to complete the repetition.

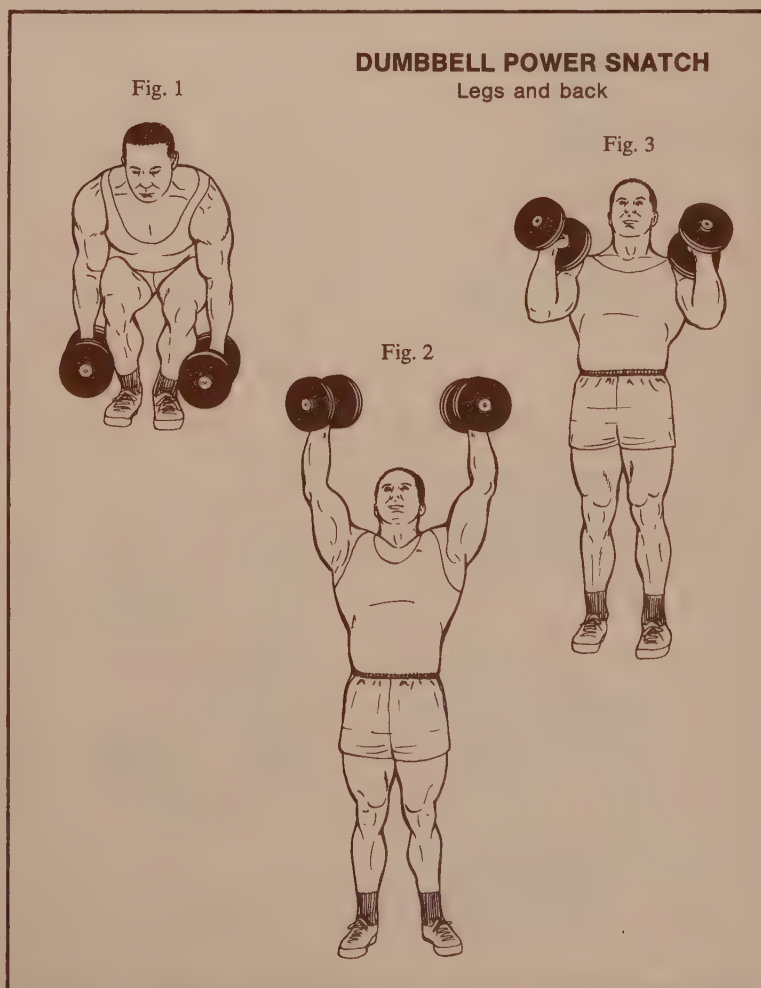
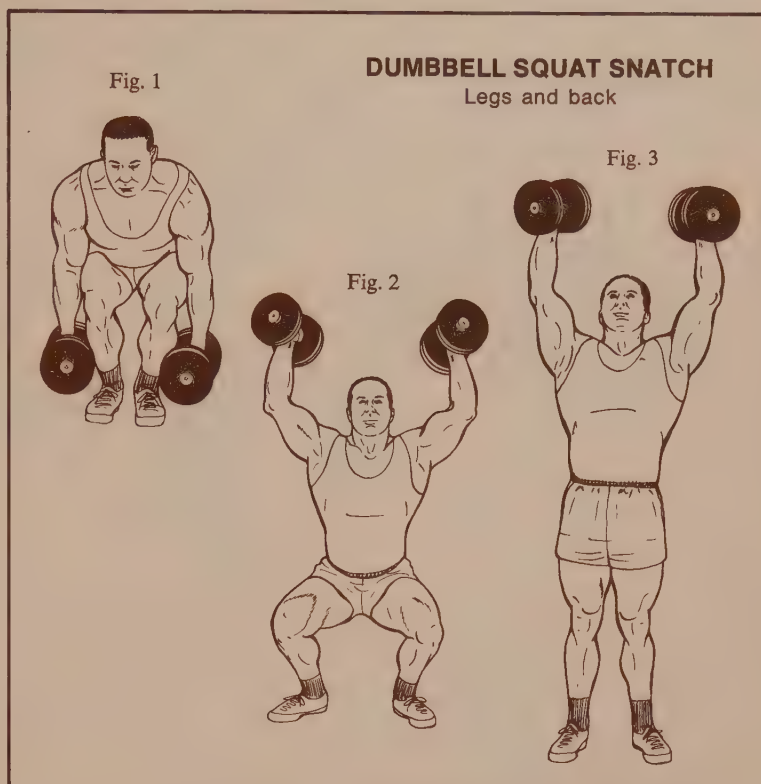
■ Barbell Power Snatch

Legs and back

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching the bar. Bend down and get a palms down grip on the bar with your hands placed about twenty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as you commence to stand erect. Continue the pull until the barbell is directly overhead at arm's length with your elbows locked out and exhale. The entire movement from floor to the overhead is done in one motion. Lower the bar down to your upper chest and on down to the floor to complete the repetition.

■ Dumbbell Power Snatch

With your feet about twelve inches apart, place a dumbbell at each outer side of your ankles. Bend down and get a palms down grip on the dumbbells. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and your head up. Your back will be at about a 45° angle. Inhale and pull the dumbbells straight up slightly out in front of you. Continue the pull upward until the dumbbells are directly overhead at arm's length with your elbows locked out and exhale. The entire movement from the floor to overhead is done in a single motion. Lower the dumbbells to shoulder height and on down to the floor to complete the repetition.



BARBELL DEAD LIFT

Lower back

Fig. 1

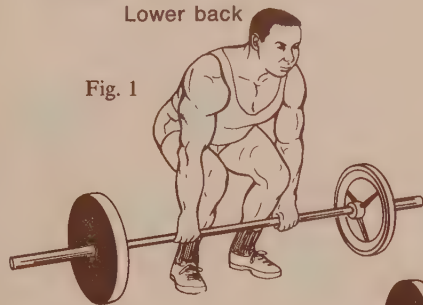
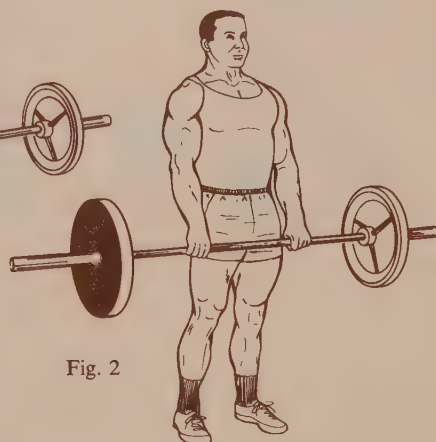


Fig. 2

**▲ Barbell Dead Lift**

Place a barbell on the floor in front of you. With your feet about sixteen inches apart, bend down and grasp the bar just to the outside of your knees in the middle of your lower legs. Keep your knees bent and your back straight while you have your head up. Inhale and, using your thighs and back, stand erect with your arms locked out. Lower the weight to the floor and exhale.

▲ Stiff Legged Barbell Dead Lift

Lower back

Using a foot stance that is about sixteen inches apart, place a barbell in front of you with the barbell close enough to you that it nearly touches your shins. Bend at the waist and grasp the barbell with both hands using a palms down grip. Keep your legs straight, back straight and head up. Inhale and stand erect with the barbell, keeping your arms straight and elbows locked out. Lower the barbell back to the floor with your legs straight and exhale.

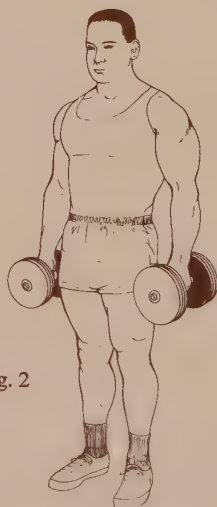
DUMBBELL DEAD LIFT

Lower back and thighs

Fig. 1



Fig. 2

**▲ Dumbbell Dead Lift**

Using a foot stance that is about eight inches apart, place a dumbbell at each side of your feet. Bend at the waist and grasp the dumbbells with both hands, having your legs bent, back straight and head up. Inhale and stand erect with the dumbbells in both hands while your arms are locked out. Lower the weights to the floor with your legs bent and exhale.

▲ Stiff Legged Dumbbell Dead Lift

Using a foot stance that is about eight inches apart, place a dumbbell at each side of your feet. Bend at the waist and grasp the dumbbells with both hands, keeping your legs straight, back straight and head up. Inhale and stand erect with the dumbbells in both hands while your arms are locked out. Lower the weight to the floor with your legs straight and exhale.

STIFF LEGGED DUMBBELL DEAD LIFT

Lower back and thighs

Fig. 1



Fig. 2

**▲ Bent Knee Barbell Good Morning**

Lower back

Place a barbell behind your head and rest it on your shoulders. With your hands on the bar, head up and back straight, inhale and bend at the waist, with your knees slightly bent, until your upper body is parallel with the floor. Return to starting position and exhale.

▲ Stiff Legged Barbell Good Morning

Place a barbell behind your head and rest it on your shoulders. With your hands on the bar, head up and back straight, inhale and bend at the waist with your legs locked out, until your upper body is parallel with the floor. Return to starting position and exhale.

▲ Hyper Extension

Lower back

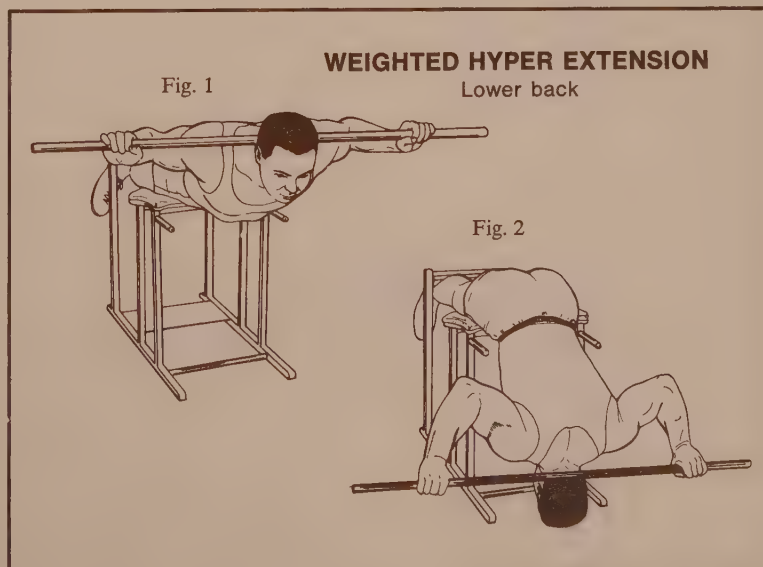
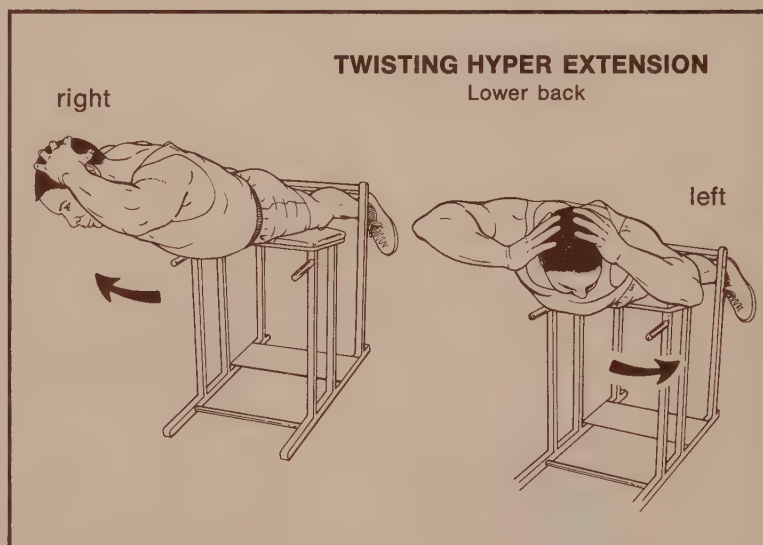
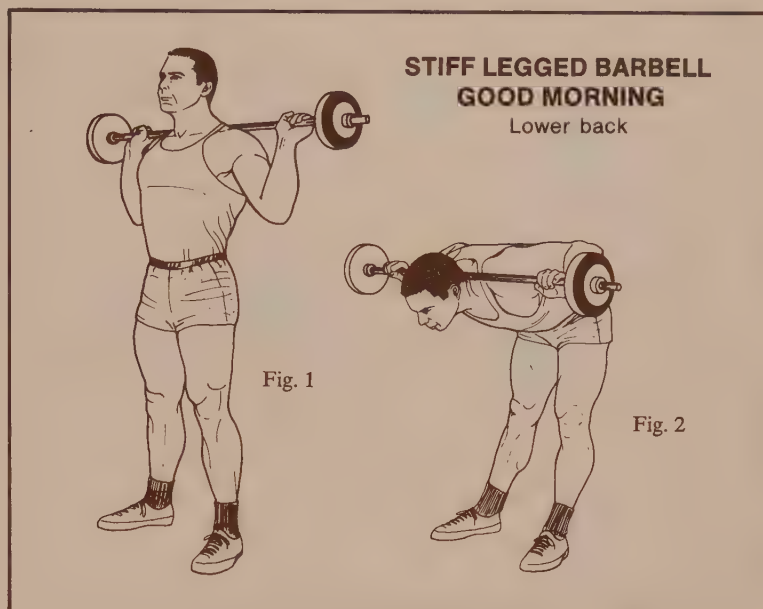
You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical with the floor. Place your hands behind your head and inhale as you raise your torso straight up until you are slightly past parallel. Return to starting position and exhale.

■ Twisting Hyper Extension

You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical with the floor. Inhale as you raise your torso up but to a right angle until you are slightly past parallel. Return to starting position and exhale. Do the prescribed number of repetitions on your right side and then change the direction of the angle to the left side, repeating the same number of repetitions.

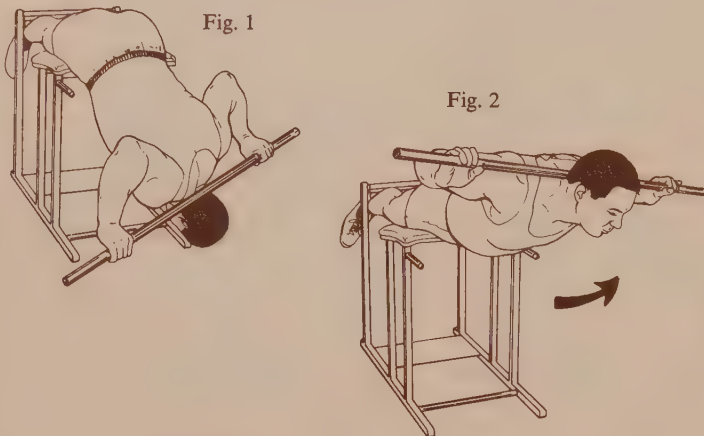
★ Weighted Hyper Extension

You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical with the floor. Place a weight behind your head and inhale as you raise your torso straight up until you are slightly past parallel. Return to starting position and exhale.



TWISTING WEIGHTED HYPER EXTENSION

Lower back



★ **Twisting Weighted Hyper Extension**

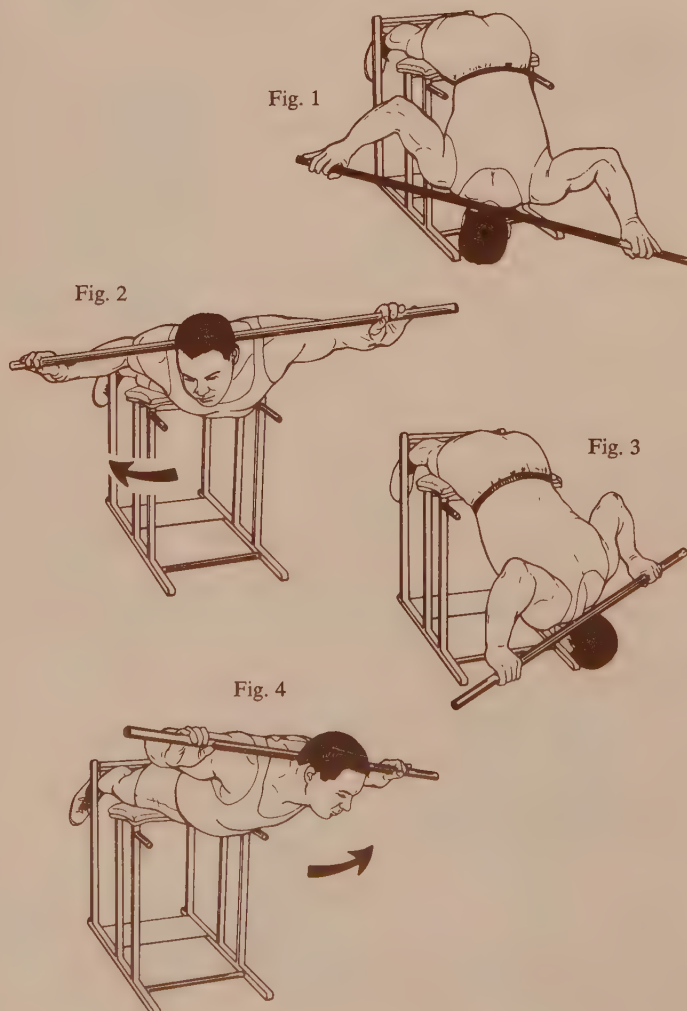
You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical to the floor. Place a weight behind your head and inhale as you raise your torso up but to a right angle until you are slightly past parallel. Return to starting position and exhale. Do the prescribed number of repetitions on your right side and then change the direction of the angle to the left side, repeating the same number of repetitions.

★ **Alternated Twisting Hyper Extension**

Lower back

ALTERNATED TWISTING WEIGHTED HYPER EXTENSION

Lower back



You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical with the floor. Place your hands behind your head and inhale as you raise your torso up but to a right angle until it is slightly past parallel. Return to starting position and then raise your torso up but to a left angle until it is slightly past parallel. Return to starting position and exhale. Two movements are considered one repetition.

■ **Alternated Twisting Weighted Hyper Extension**

You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical with the floor. Place a weight behind your head and inhale as you raise your torso up but to a right angle until it is slightly past parallel. Return to starting position and then raise your torso up but to a left angle until it is slightly past parallel. Return to starting position and exhale. Two movements are considered one repetition.

▲ **Universal Machine Shoulder Shrug**

Stand between the handles of the portion of a Universal machine that is used for

bench pressing. Bend down slightly and grasp the handles on each side of you fairly close to the beginning of the handles. Stand erect and raise the weight stack off the machine with your arms locked out at your sides. Drop both shoulders down to the front of you as much as possible. Inhale and raise your shoulders up and rotate them in a circular motion from the front to the rear returning to the starting position at the end of the repetition. Exhale as you return to starting position. Keep your back straight.

▲ Alternated Dumbbell Shoulder Shrug

Trapezius

Using a foot stance about sixteen inches apart, place a dumbbell at each side of your feet. Bend down and grasp the dumbbells with both hands. Stand erect with the dumbbells hanging at each side of your thighs at arm's length. Drop your right shoulder and rotate it in a circular motion from the front to the rear returning to starting position. As you return to the low position with your right shoulder, drop the left shoulder and repeat the exercise. Go from right shoulder to left shoulder. Inhale as you commence to rotate each shoulder and exhale as you return to starting position. Both movements are considered one repetition.

▲ Dumbbell Shoulder Shrug

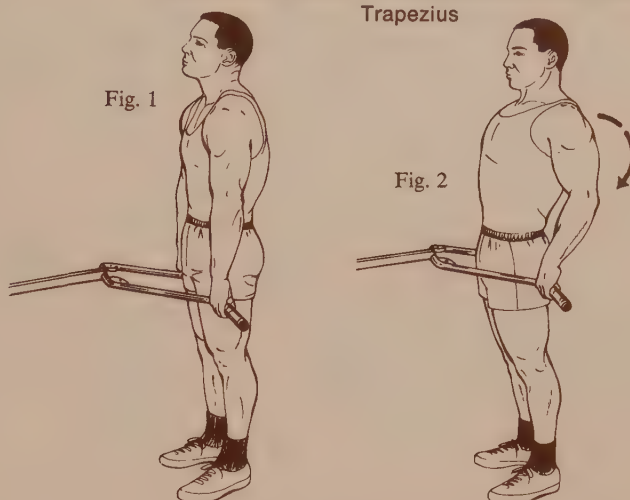
Using a foot stance about sixteen inches apart, place a dumbbell at each side of your feet. Bend down and grasp the dumbbells with both hands. Stand erect with the dumbbells hanging at each side of your thighs at arm's length. Drop both shoulders down to the front of you as much as possible. Inhale and raise your shoulders up and rotate them in a circular motion from the front to the rear returning to the starting position at the end of the repetition. Exhale as you return to starting position. Keep your back straight.

▲ Barbell Shoulder Shrug

Place a barbell on the floor in front of you. With a foot stance about sixteen inches apart, bend down and grasp the bar with both hands about twenty-four inches apart. Stand erect with the bar hanging in front of you at arm's length. Drop both shoulders

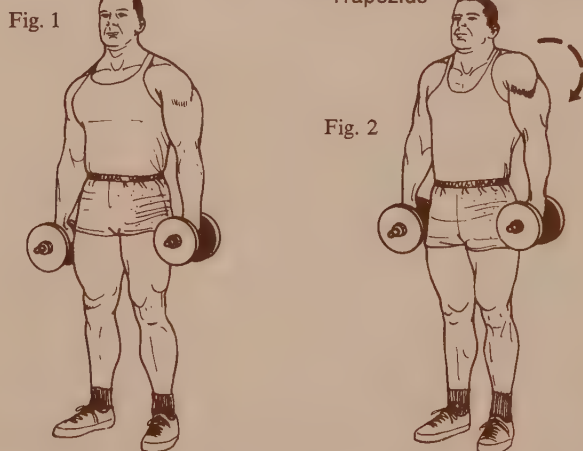
UNIVERSAL MACHINE SHOULDER SHRUG

Trapezius



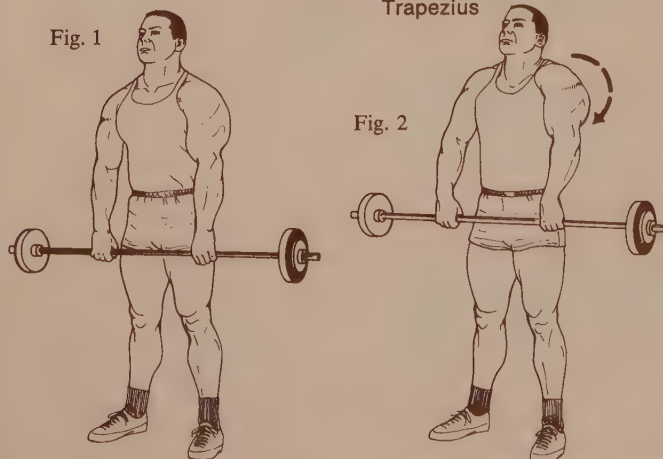
DUMBBELL SHOULDER SHRUG

Trapezius



BARBELL SHOULDER SHRUG

Trapezius



SEATED DUMBBELL SHRUG

Trapezius

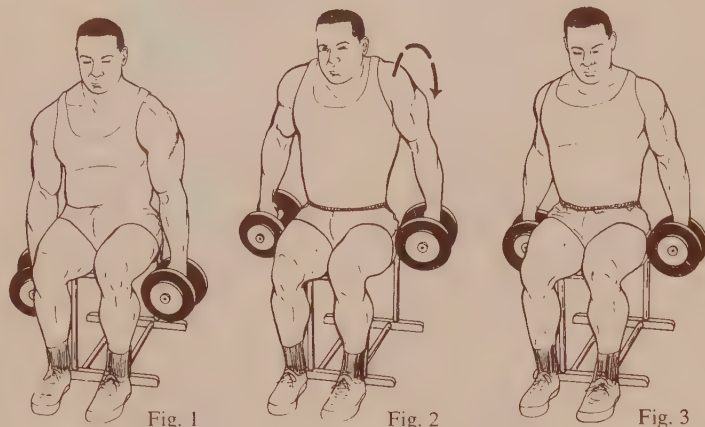


Fig. 1

Fig. 2

Fig. 3

SEATED ALTERNATED DUMBBELL SHRUG

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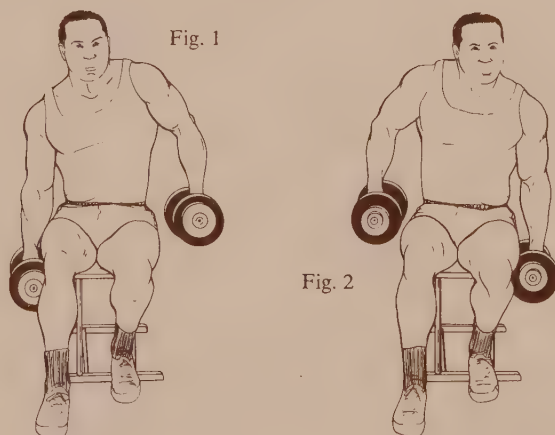


Fig. 1

Fig. 2

WIDE GRIP HIGH PULL

Legs and back

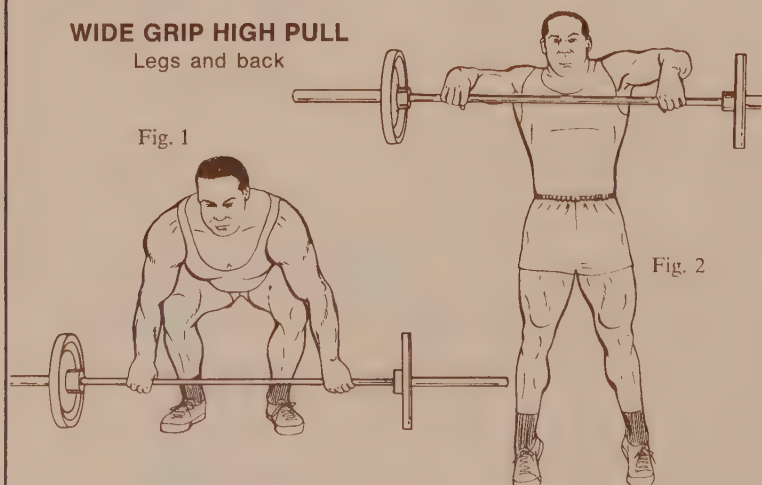


Fig. 1

Fig. 2

down to the front of you as much as possible. Inhale and raise your shoulders up and rotate them in a circular motion from the front to the rear returning to the starting position at the end of the repetition. Exhale as you return to starting position. Keep your back straight.

▲ Seated Dumbbell Shrug

Hold a dumbbell in each hand with your palms facing in. Sit at the end of a bench with your legs fairly close together. Keep your back straight and your head up. With your arms hanging at your sides, drop your shoulders as low as you possibly can and then commence to bring your shoulders up and back in a circular motion going from the front to the back. Exhale as you return to the starting position.

▲ Seated Alternated Dumbbell Shrug

Hold a dumbbell in each hand with your palms facing in. Sit at the end of a bench with your legs fairly close together. Keep your back straight and your head up. With your arms hanging at your sides, drop your right shoulder as low as possible and then commence to bring your shoulder up and back in a circular motion going from the front to the back. When you complete a repetition with your right shoulder, then do a repetition with your left shoulder until the prescribed number of repetitions are completed. Inhale as you raise your right shoulder and exhale as you raise your left shoulder.

■ Wide Grip High Pull

Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching. Bend down and get a palms down grip with your hands about thirty-six inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as high as your shoulders, if possible, as you stand erect. To help get more pulling power as the weight is raised, it is best to continue the pull by throwing your head back and raising high on your toes at the top position. Lower the weight

to arm's length and then to the floor to complete the movement.

■ Medium Grip High Pull

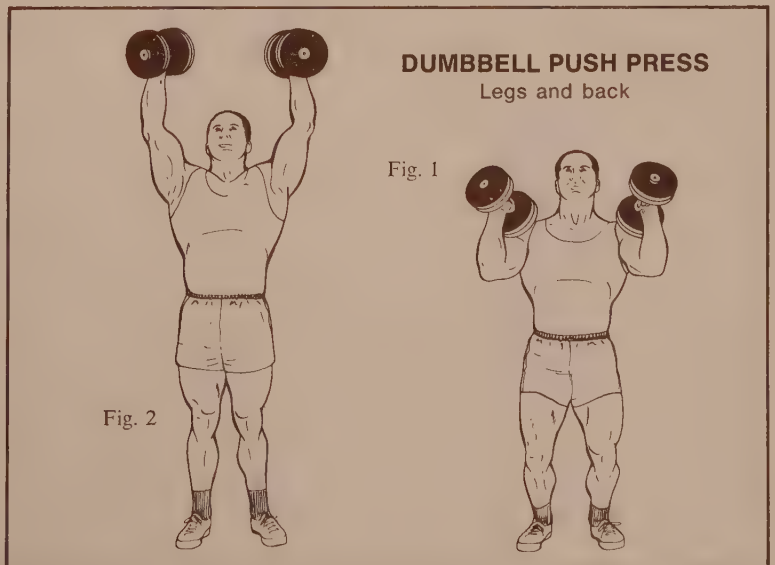
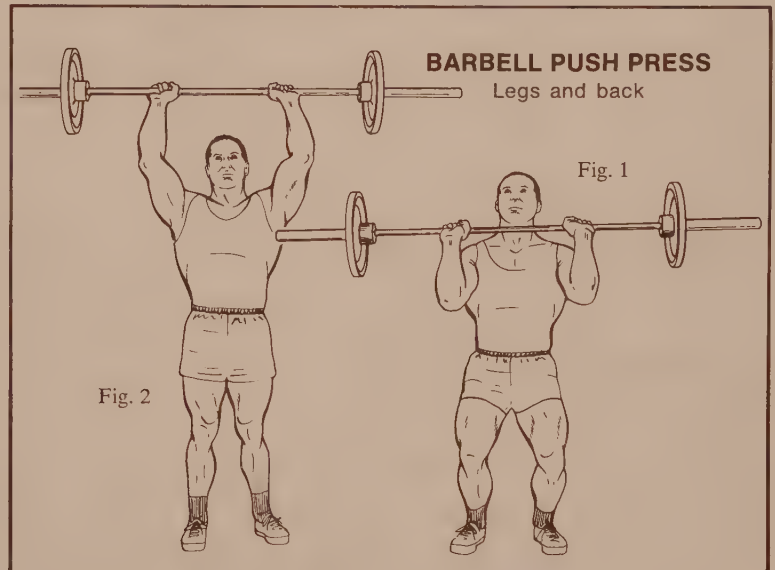
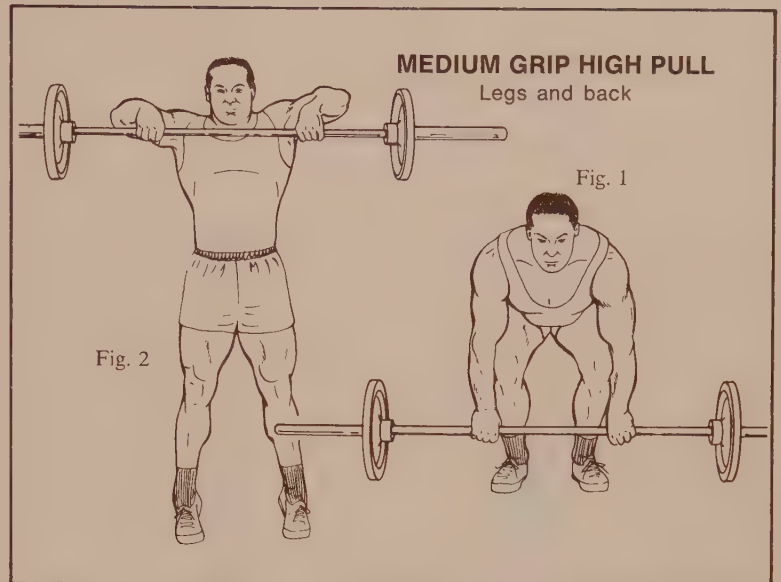
Place a barbell in front of you. With your feet about sixteen inches apart, step up to the bar until your shins are nearly touching. Bend down and get a palms down grip with your hands about twenty-four inches apart. Bend your legs until your upper thighs are nearly parallel with the floor. Keep your arms straight and head up. Your back will be at about a 45° angle. Inhale and pull the bar straight up as high as your shoulders, if possible, as you stand erect. To help get more pulling power as the weight is raised, it is best to continue the pull by throwing your head back and raising high on your toes at the top position. Lower the weight to arm's length and then to the floor to complete the movement.

■ Barbell Push Press

Using about a twenty-six inch grip on a barbell, either clean the bar to the top of your upper chest or take the bar off of a rack and place it on your upper chest. Inhale and squat down about twelve inches, keeping your back straight, elbows slightly forward and head up. With the power from your legs and back, push the barbell overhead to arm's length by straightening your legs out quickly to generate more pushing power to raise the barbell. Hold the weight at arm's length for a short period and then lower it back to the top of your upper chest and exhale.

■ Dumbbell Push Press

Clean two dumbbells to the height of your shoulders and hold them there with your palms facing each other. Inhale and squat down about twelve inches, keeping your back straight, elbows slightly forward and head up. With the power from your legs and back, push the dumbbells overhead to arm's length by straightening your legs out quickly to generate more pushing power to raise the dumbbells. Hold the weights at arm's length for a short period and then lower them back to the height of your shoulders and exhale.



CLOSE GRIP FRONT CHIN

Lower lats

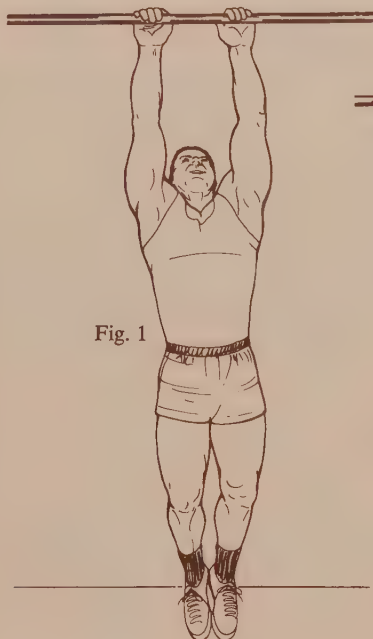


Fig. 1



Fig. 2

■ Close Grip Front Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down and about six to eight inches apart. Inhale and pull yourself up to the chinning bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

★ Close Grip Weighted Front Chin

Lower lats

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach the weight from your waist. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down and about six to eight inches apart. Inhale and pull yourself up to the chinning bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

MEDIUM GRIP FRONT CHIN

Lats

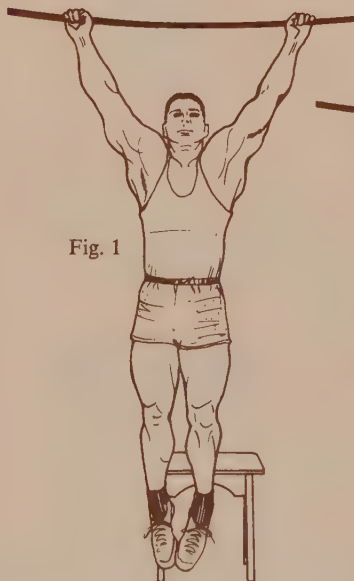


Fig. 1

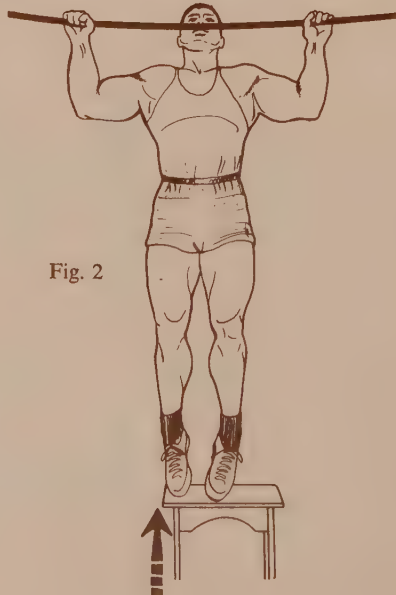


Fig. 2

■ Medium Grip Front Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about eighteen to twenty inches apart. Inhale and pull yourself up to the chinning bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

★ Medium Grip Weighted Front Chin

Lats

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach the weight from your waist. Either

jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about eighteen to twenty inches apart. Inhale and pull yourself up to the bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

■ Wide Grip Front Chin

Upper lats

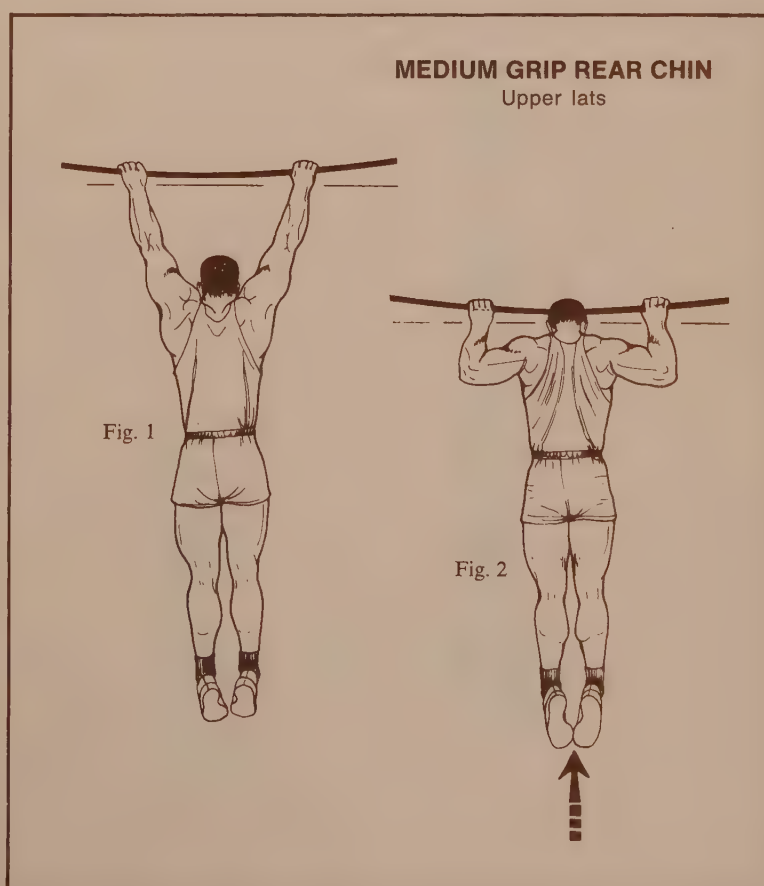
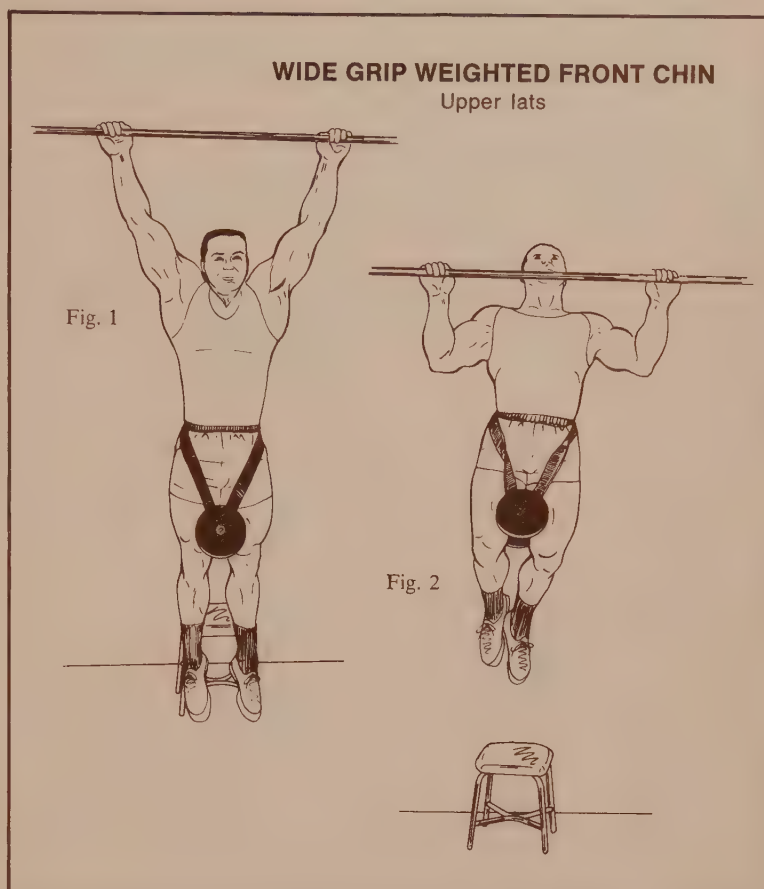
Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about thirty-two to thirty-four inches apart. Inhale and pull yourself up to the bar, trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

★ Wide Grip Weighted Front Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach the weight from your waist. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about thirty-two to thirty-four inches apart. Inhale and pull yourself up to the bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body.

■ Medium Grip Rear Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about eighteen to twenty inches apart. Inhale and pull yourself up to the chinning bar trying to touch the back of your neck with the bar. Return to a position where you are hanging in midair at arm's length and exhale. Do not swing your body back and forth.



WIDE GRIP REAR CHIN

Upper lats

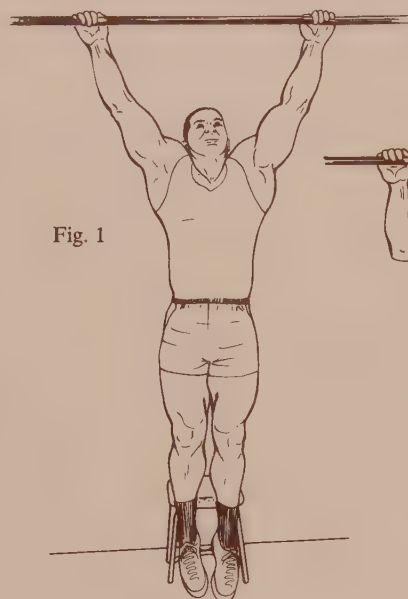


Fig. 1

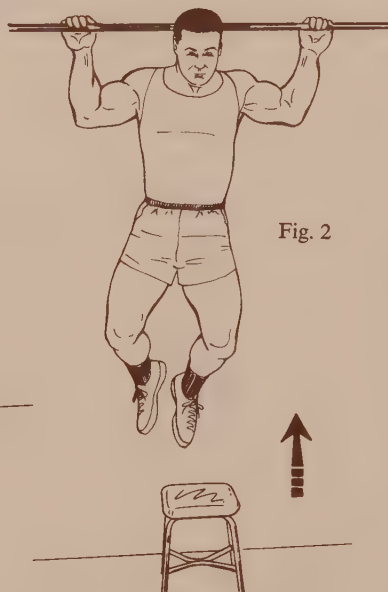


Fig. 2

★ Medium Grip Weighted Rear Chin

Upper lats

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach the weight from your waist. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about eighteen to twenty inches apart. Inhale and pull yourself up to the chinning bar trying to touch the back of your neck with the bar. Return to a position where you are hanging in mid-air at arm's length and exhale. Do not swing your body back and forth.

■ Wide Grip Rear Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about thirty-two to thirty-four inches apart. Inhale and pull yourself up to the bar trying to touch the back of your neck on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyperextended and do not swing your body back and forth.

WIDE GRIP WEIGHTED REAR CHIN

Upper lats

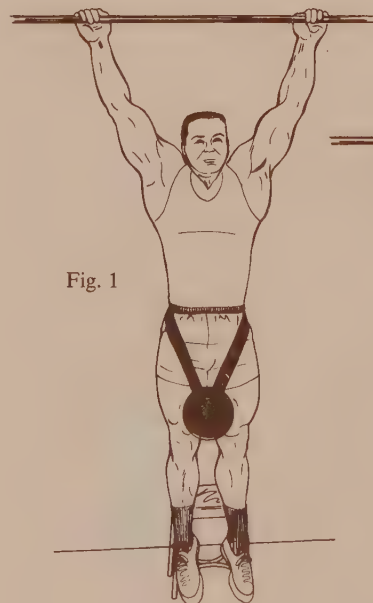


Fig. 1

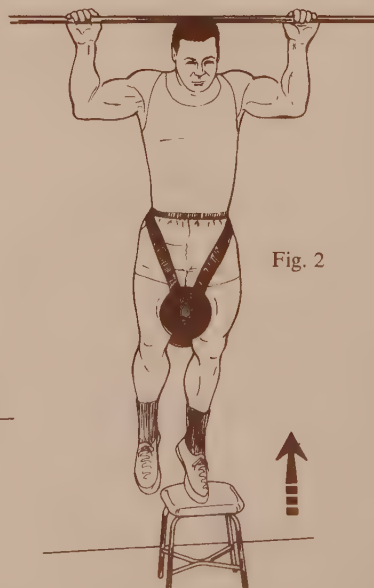


Fig. 2

★ Wide Grip Weighted Rear Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach the weight from your waist. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about thirty-two to thirty-four inches apart. Inhale and pull yourself up to the bar trying to touch the back of your neck on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Do not swing your body back and forth.

■ Wide Grip Front to Rear Chin

Upper lats

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will

enable you to grasp the bar using a grip that is about thirty-six inches apart. While hanging in midair with your hands and arms supporting you, inhale and pull yourself up as high as you can, drawing your head back while trying to touch the bar with your chin. Lower yourself to starting position and exhale. Now pull yourself up again as high as you can, tucking your head forward, and try to touch the back of your neck with the bar. Lower yourself to starting position and exhale. A repetition to the front and to the rear is considered one repetition.

★ Medium Grip Weighted Front to Rear Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach a weight from your waist. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about twenty-four inches apart. Inhale and pull yourself up to the bar, trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Now pull yourself up to the bar, trying to touch the back of your neck on the bar and return to starting position. Continue going from front to rear until the prescribed number of repetitions are completed. A repetition to the front and to the rear is considered one repetition.

■ Medium Grip Front to Rear Chin

Lats

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to grasp the bar, using a grip that is about twenty-six inches apart. While hanging in midair with your hands and arms supporting you, inhale and pull yourself up as high as you can drawing your head back while trying to touch the bar with your chin. Lower yourself to starting position and exhale. Now pull yourself up again as high as you can, tucking your head forward and try to touch the back of your neck with the bar. Lower yourself to starting position and exhale. A repetition to the front and to the rear is considered one repetition.

MEDIUM GRIP WEIGHTED FRONT TO REAR CHIN

Lats

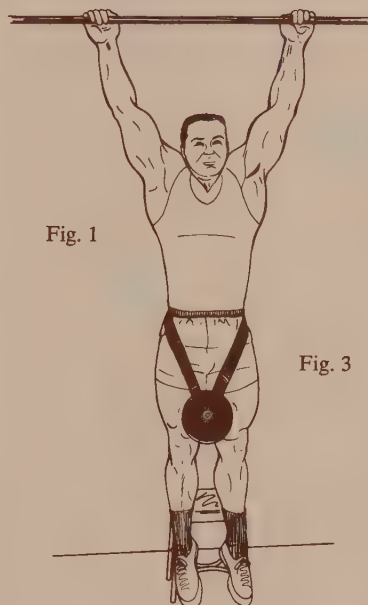


Fig. 1

Fig. 3

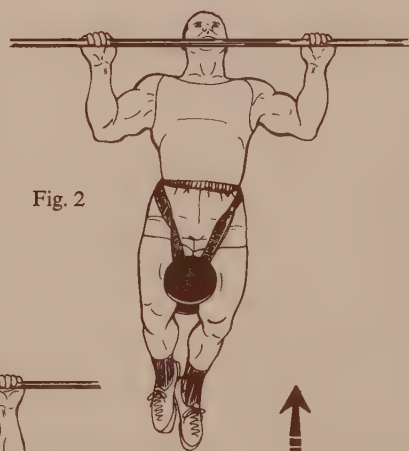


Fig. 2

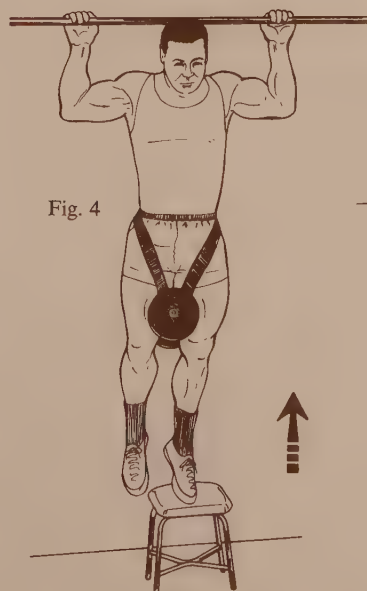
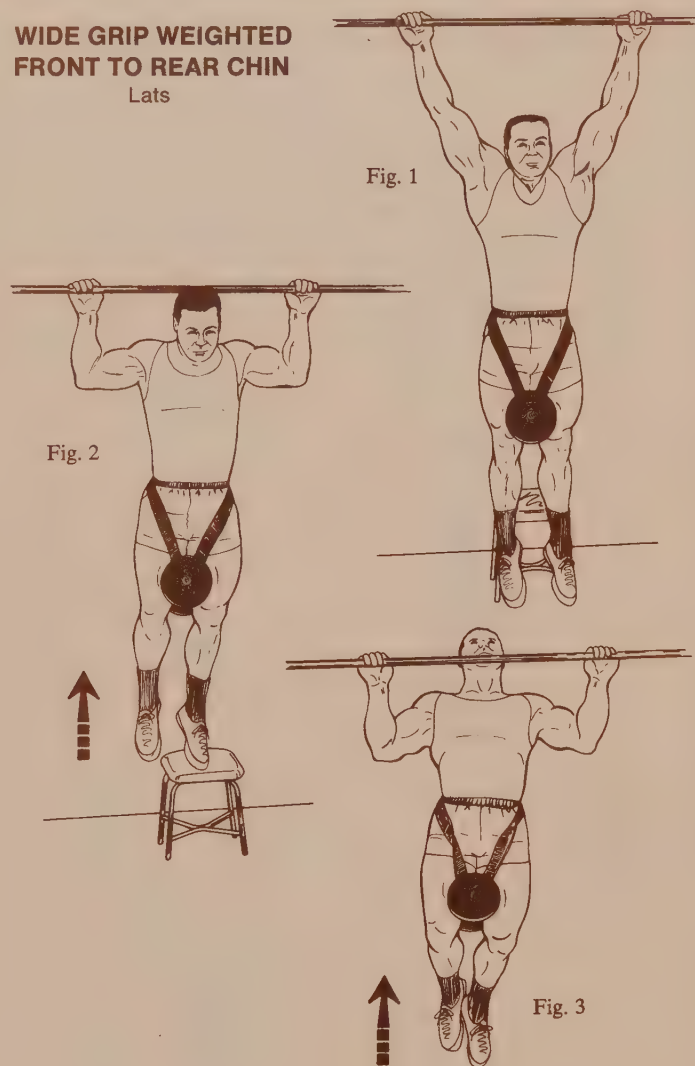


Fig. 4

WIDE GRIP WEIGHTED FRONT TO REAR CHIN

Lats



★ Wide Grip Weighted Front to Rear Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach a weight from your waist. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about thirty-two inches apart. Inhale and pull yourself up to the bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Now pull yourself up to the bar, trying to touch the back of your neck on the bar and return to starting position. Continue going from front to rear until the prescribed number of repetitions are completed. A repetition to the front and to the rear is considered one repetition.

■ Reverse Close Grip Front Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a reverse grip on the bar that is about six to eight inches apart. Inhale and pull yourself up to the chinning bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

★ REVERSE CLOSE GRIP WEIGHTED FRONT CHIN

Lower lats

■ Reverse Medium Grip Front Chin

Lower and upper lats

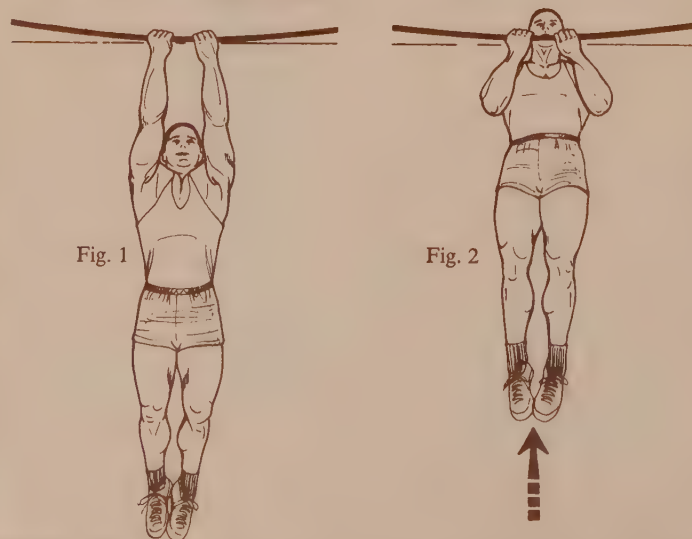
Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a reverse grip on the bar that is about eighteen to twenty inches apart. Inhale and pull yourself up to the chinning bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

★ Medium Grip Side to Side Front Chin

Use a chinning bar that is about six inches higher off the floor than you can reach with

REVERSE CLOSE GRIP FRONT CHIN

Lower lats



your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down and about eighteen to twenty inches apart. Inhale and pull with your right arm and back muscles until you are raising your body over to the right and up until your nose or chin nearly touches the bar. Lower yourself back to starting position and exhale. Repeat the movement to the left side and back to starting position. A repetition to the right and to the left is considered one repetition.

★Wide Grip Side to Side Front Chin

Lats

Use a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to get a grip on the bar with your palms facing down about thirty-two to thirty-four inches apart. Inhale and pull with your right arm and back muscles until you are raising your body over to the right and up until your nose or chin nearly touches the bar. Lower yourself back to starting position and exhale. Repeat the movement to the left side and back to starting position. A repetition to the right and to the left is considered one repetition.

★Wide Grip Attachment Side to Side Front Chin

Place a wide grip chinning attachment on to a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to grasp the ends of the attachment. Inhale and pull with your right arm and back muscles until you are raising your body over to the right and up until your nose or chin nearly touches the bar. Lower yourself back to starting position and exhale. Repeat the movement to the left side and back to starting position. A repetition to the right and to the left is considered one repetition.

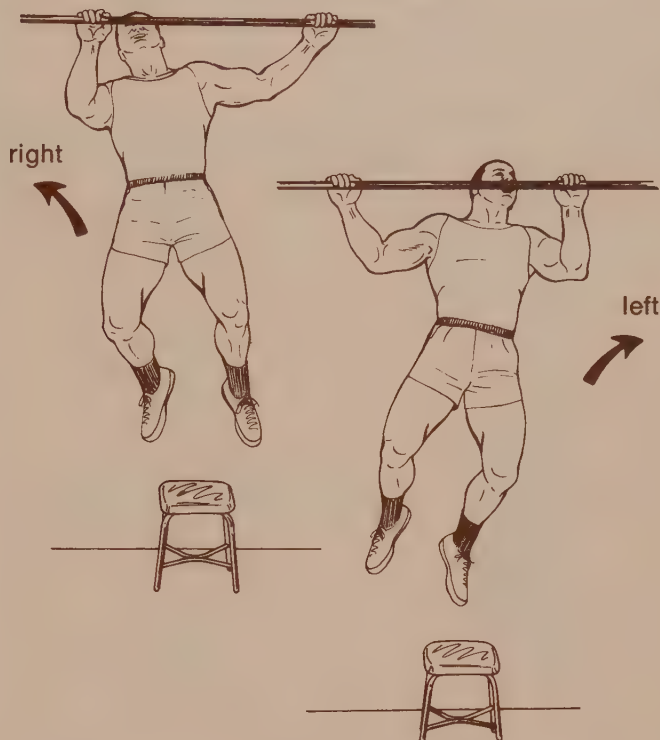
■Wide Grip Attachment Front Chin

Upper lats

Place a wide grip chinning attachment on to a chinning bar that is about six inches

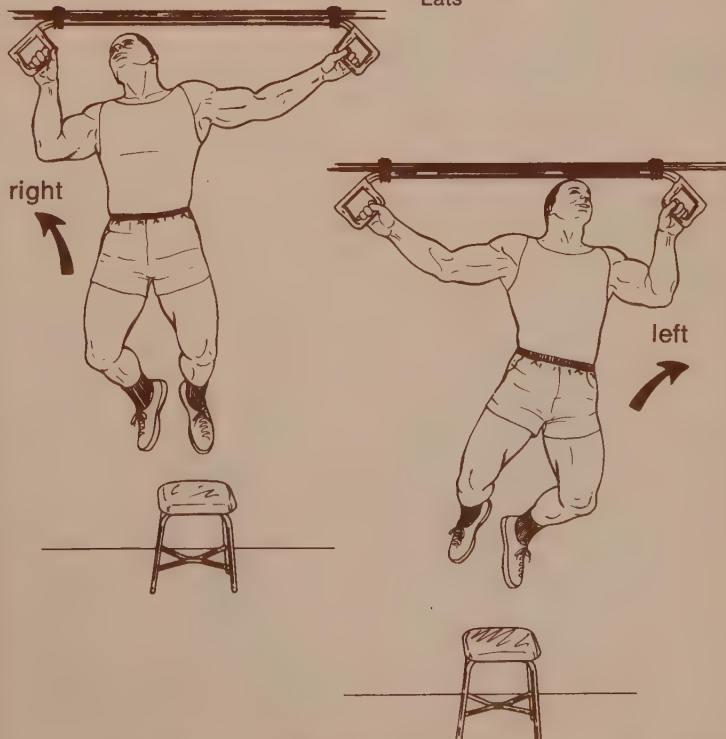
MEDIUM GRIP SIDE TO SIDE FRONT CHIN

Lats



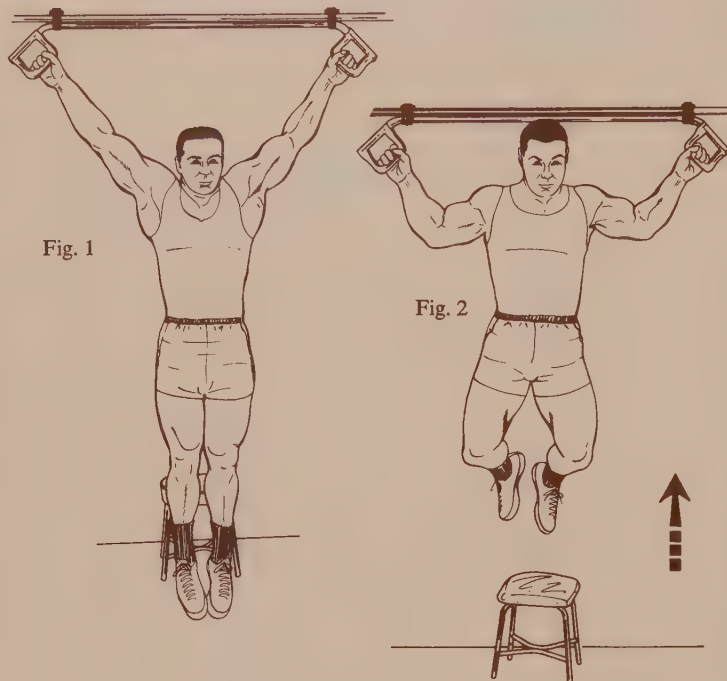
WIDE GRIP ATTACHMENT SIDE TO SIDE FRONT CHIN

Lats



WIDE GRIP ATTACHMENT REAR CHIN

Upper lats



higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to grasp the ends of the attachment. Inhale and pull yourself up to the bar trying to touch your chin on the bar. Return to a position where you are hanging in mid-air at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

★ Wide Grip Attachment Rear Chin

Place a wide grip chinning attachment on to a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to grasp the ends of the attachment. Inhale and pull yourself up to the bar trying to touch the back of your neck with the bar. Return to a position where you are hanging in midair at arm's length and exhale. Do not swing your body back and forth.

★ WIDE GRIP ATTACHMENT WEIGHTED REAR CHIN

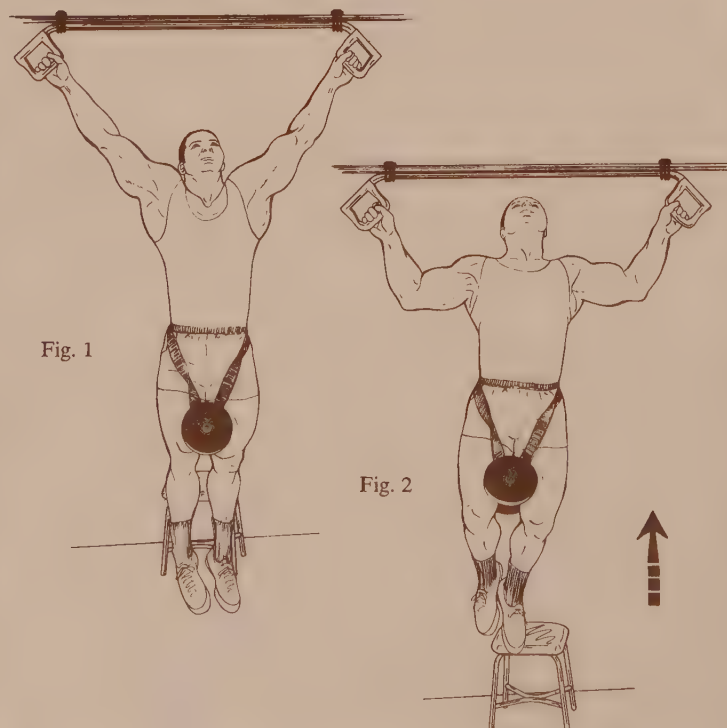
Upper lats

★ Wide Grip Attachment Weighted Front Chin

Place a wide grip chinning attachment on to a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach the weights from your waist. Either jump up to the bar or use a stool that will enable you to grasp the ends of the attachment. Inhale and pull yourself up to the bar trying to touch your chin on the bar. Return to a position where you are hanging in midair at arm's length and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

WIDE GRIP ATTACHMENT WEIGHTED FRONT CHIN

Upper lats

**★ Wide Grip Attachment Front to Rear Chin**

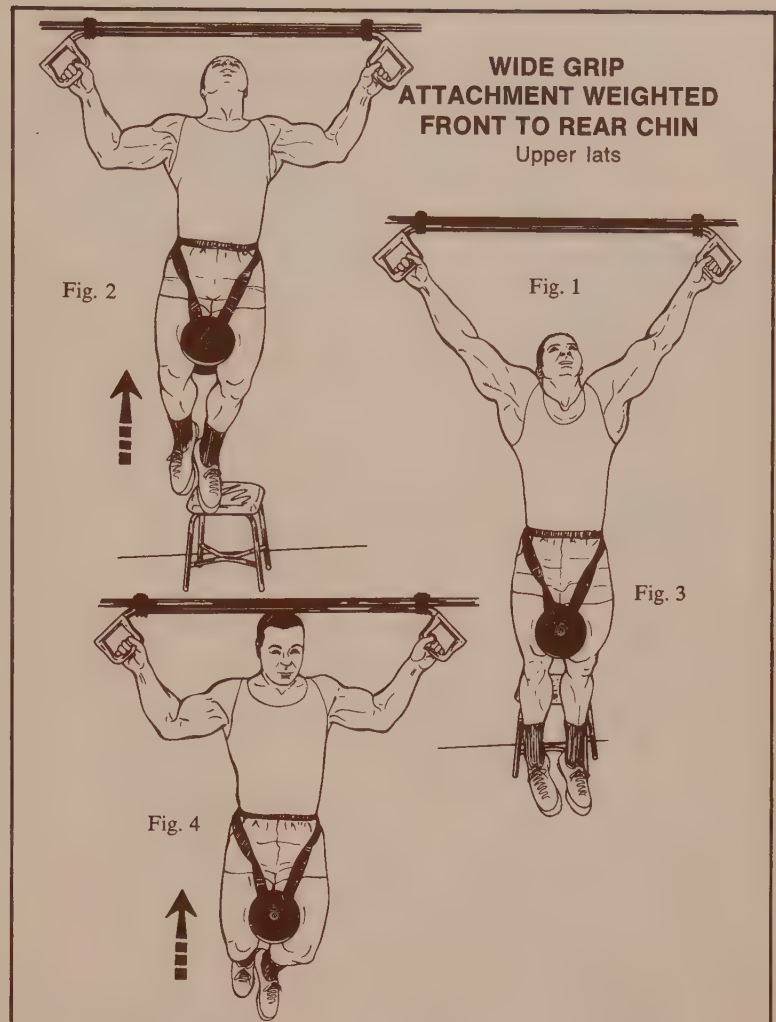
Upper lats

Place a wide grip chinning attachment on a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Either jump up to the bar or use a stool that will enable you to grasp the ends of the attachment. While hanging in midair with your hands and arms supporting your body weight, inhale and pull yourself up as high

as you can drawing your head back while trying to touch the bar with your chin. Lower yourself to starting position and exhale. Now pull yourself up again as high as you can tucking your head forward and trying to touch the back of your neck with the bar. Lower yourself to starting position and exhale. A repetition to the front and to the rear is considered one repetition.

★ Wide Grip Attachment Weighted Front to Rear Chin

Place a wide grip chinning attachment on a chinning bar that is about six inches higher off the floor than you can reach with your arms extended over your head. Use a weight support belt or a piece of rope to attach a weight from your waist. Either jump up to the bar or use a stool that will enable you to grasp the ends of the attachment. While hanging in midair with your hands and arms supporting you, inhale and pull yourself up as high as you can drawing your head back while trying to touch the bar with your chin. Lower yourself to starting position and exhale. Now pull yourself up again as high as you can tucking your head forward and try to touch the back of your neck with the bar. Lower yourself to starting position and exhale. A repetition to the front and to the rear is considered one repetition.



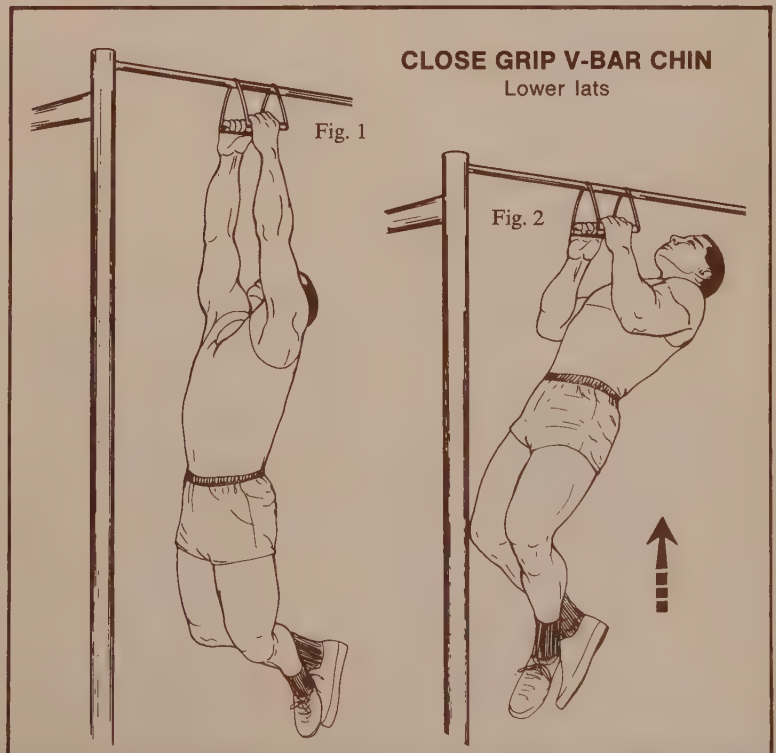
■ Close Grip V Bar Chin

Place a V bar attachment on to a chinning bar and grasp the handles with both hands at higher than arm's length above your head. Inhale and pull yourself up to the chinning bar trying to touch your chin on the bar. Return to starting position and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.

★ Close Grip Weighted V Bar Chin

Lower lats

Place a V bar attachment on to a chinning bar. Use a weight support belt or a piece of rope to attach the weight from your waist. Grasp the handles of the V bar with both hands at a higher than arm's length above your head. Inhale and pull yourself up to the chinning bar trying to touch your chin on the bar. Return to starting position and exhale. Try to keep your back slightly hyper extended and do not swing your body back and forth.



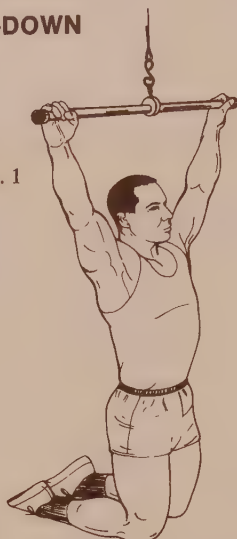
WIDE GRIP FRONT LAT PULL-DOWN

Upper lats



Fig. 2

Fig. 1

**CLOSE GRIP FRONT LAT PULL-DOWN**

Lower lats



Fig. 2

Fig. 1

**WIDE GRIP REAR LAT PULL-DOWN**

Upper lats

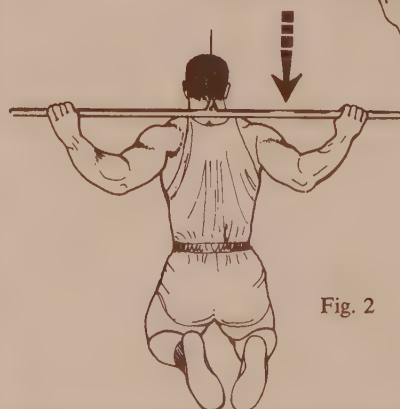
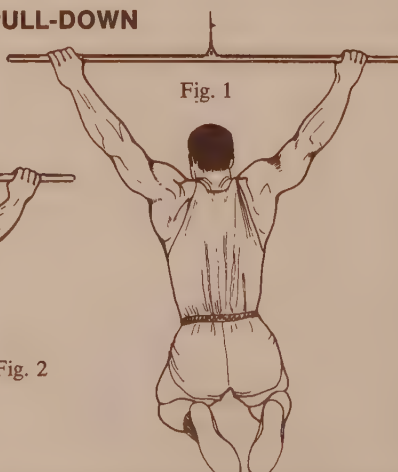


Fig. 2

Fig. 1

**▲Wide Grip Front Lat Pull-Down**

Place your hands on a lat machine bar about thirty-six inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar straight down until it is even with your upper chest. Return to starting position and exhale.

▲Medium Grip Front Lat Pull-Down

Lats

Place your hands on a lat machine bar about twenty-four inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar straight down until it is even with your upper chest. Return to starting position and exhale.

▲Close Grip Front Lat Pull-Down

Place your hands on a lat machine bar about eight inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar straight down until it is even with your upper chest. Return to starting position and exhale.

▲Medium Grip Rear Lat Pull-Down

Lats

Place your hands on a lat machine bar about twenty-four inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar down behind your head to the middle of your neck. Return to starting position and exhale. Keep your back straight and do not bend forward.

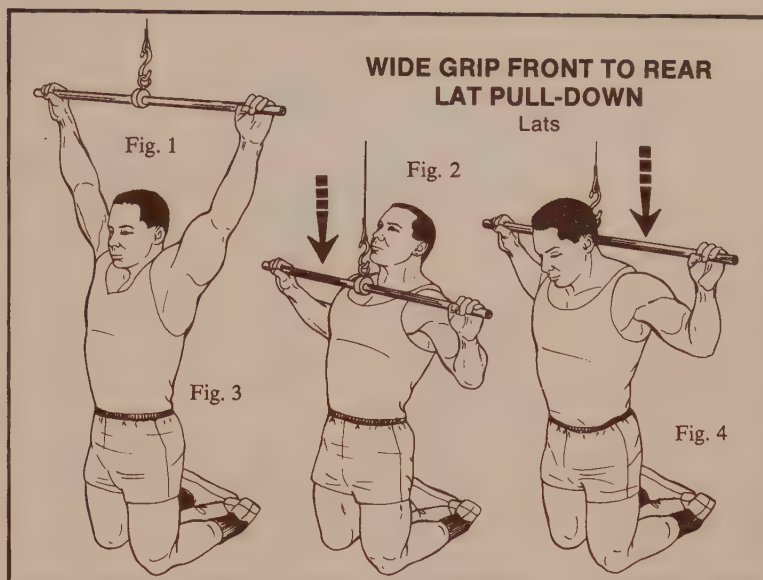
▲Wide Grip Rear Lat Pull-Down

Place your hand on a lat machine bar about thirty-six inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar down behind your head to the middle of

your neck. Return to starting position and exhale. Keep your back straight and do not bend forward.

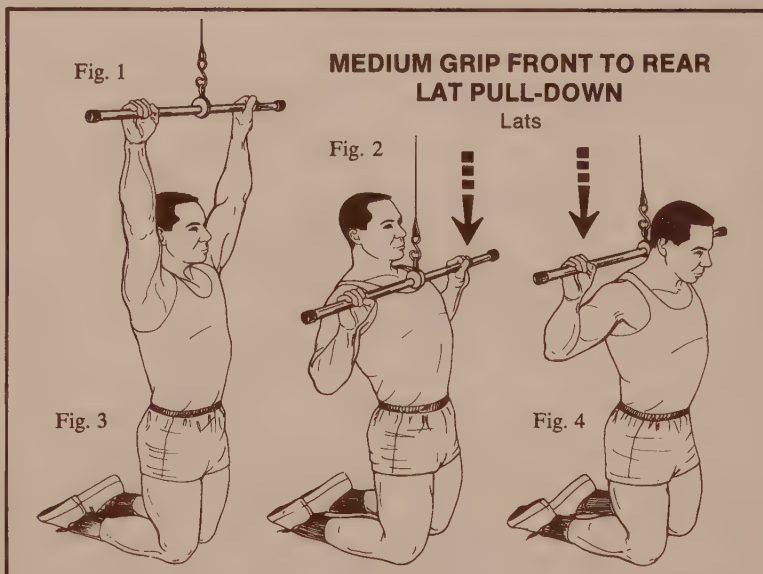
■ Wide Grip Front to Rear Lat Pull-Down

Place your hands on a lat machine bar about thirty-six inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar straight down until it is even with your upper chest. Return to starting position and exhale. Now inhale and pull the bar straight down until it touches the back of your neck just above your shoulders. Return to starting position and exhale. Continue going from front to rear until the prescribed number of repetitions are completed.



■ Medium Grip Front to Rear Lat Pull-Down

Place your hands on a lat machine bar about twenty-four inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar straight down until it is even with your upper chest. Return to starting position and exhale. Now inhale and pull the bar straight down until it touches the back of your neck just above your shoulders. Return to starting position and exhale. Continue going from front to rear until the prescribed number of repetitions are completed.



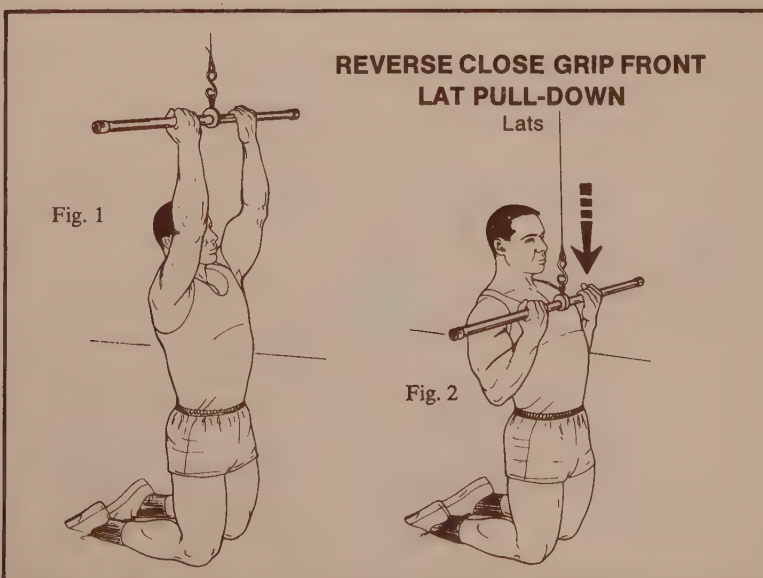
■ Reverse Close Grip Front Lat Pull-Down

Use a reverse hand grip on a lat machine bar keeping the hands about eight inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar straight down until it is even with your shoulders. Return to starting position and exhale.

■ Reverse Medium Grip Front Lat Pull-Down

Lats

Use a reverse hand grip on a lat machine bar keeping the hands about twenty-four inches apart. Kneel down on your knees until you are supporting the weight stack with your arms while they are extended overhead. Inhale and pull the bar straight down until it is even with your shoulders. Return to starting position and exhale.



LYING HIGH BENCH REVERSE MEDIUM GRIP BARBELL LAT PULL-UP

Lats

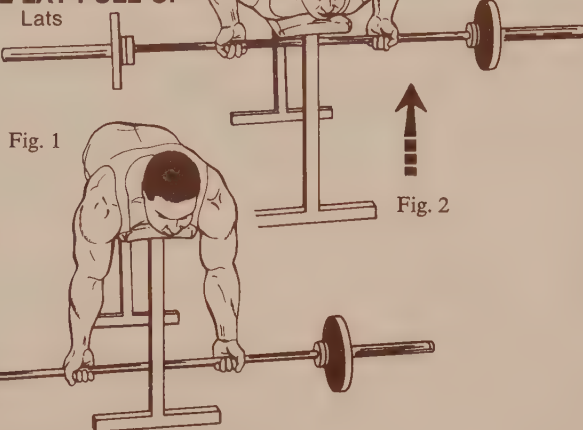


Fig. 1

Fig. 2

LYING HIGH BENCH CLOSE GRIP BARBELL LAT PULL-UP

Lower lats

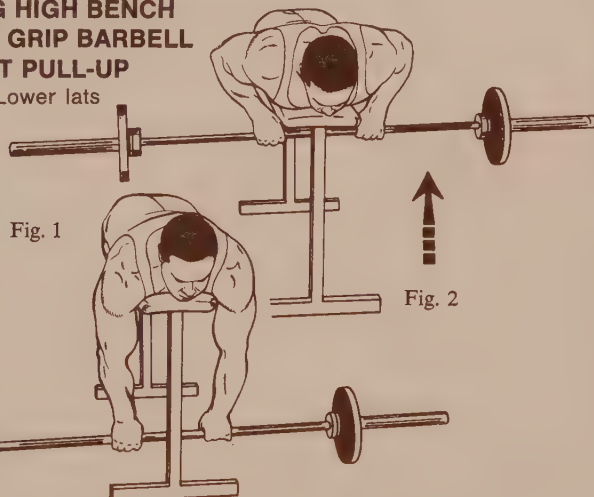


Fig. 1

Fig. 2

LYING HIGH BENCH WIDE GRIP BARBELL LAT PULL-UP

Upper lats

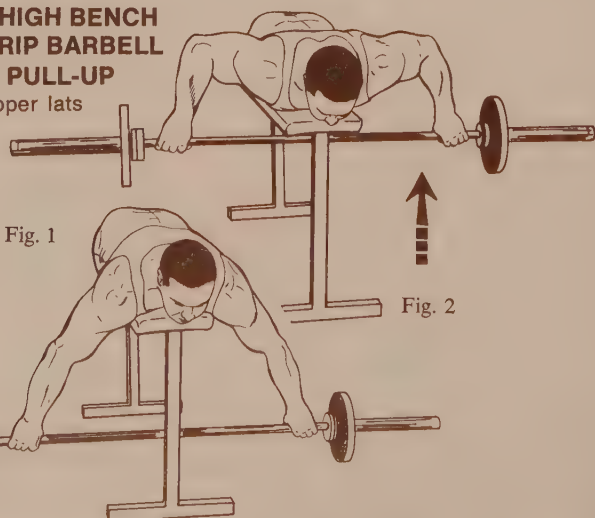


Fig. 1

Fig. 2

■ Lying High Bench Reverse Medium Grip Barbell Lat Pull-Up

Lie on a high flat bench that will enable you to lie face forward on the bench and hold a barbell in your hands, with a palms up grip about twenty-six inches apart and not have the bar touch the floor with your arms hanging straight down from your shoulders. Inhale and pull the barbell straight up to the underside of the bench, bending your elbows as the bar is raised and keeping them in close to your sides at the top position. Return the bar to starting position and exhale.

■ Lying High Bench Reverse Wide Grip Barbell Lat Pull-Up

Lats

Lie on a high flat bench that will enable you to lie face forward on the bench and hold a barbell in your hands, with a palms up grip about thirty-six inches apart and not have the bar touch the floor, with your arms hanging straight down from your shoulders. Inhale and pull the barbell straight up to the underside of the bench, bending your elbows as the bar is raised and keeping them in close to your sides at the top position. Return the bar to starting position and exhale.

▲ Lying High Bench Close Grip Barbell Lat Pull-Up

Lie on a high flat bench that will enable you to lie face forward on the bench and hold a barbell in your hands, with a palms down grip, about sixteen inches apart and not have the bar touch the floor, with your arms hanging straight down from your shoulders. Inhale and pull the barbell straight up to the underside of the bench, bending your elbows as the bar is raised and keeping them in close to your sides at the top position. Return the bar to starting position and exhale.

▲ Lying High Bench Wide Grip Barbell Lat Pull-Up

Lie on a high flat bench that will enable you to lie face forward on the bench and hold a barbell in your hands, with a palms down grip about thirty-six inches apart and not have the bar touch the floor, with your arms hanging straight down from your shoulders. Inhale and pull the barbell straight up to the underside of the bench bending your elbows as the bar is raised and keeping

them in close to your side at the top position. Return the bar to starting position and exhale.

▲ Lying High Bench Medium Grip Barbell Lat Pull-Up

Lats

Lie on a high flat bench that will enable you to lie face forward on the bench and hold a barbell in your hands, with a palms down grip, about twenty-six inches apart and not have the bar touch the floor, with your arms hanging straight down from your shoulders. Inhale and pull the barbell straight up to the underside of the bench, bending your elbows as the bar is raised and keeping them in close to your sides at the top position. Return the bar to starting position and exhale.

▲ Close Grip Bent Over Barbell Rowing

Place a barbell on the floor in front of you. With your feet about eighteen inches apart bend down and get a grip on the barbell that is about fourteen inches wide. Keep the legs bent and the back parallel to the floor as you inhale and pull the barbell directly up to the lower part of the chest. Exhale as the bar returns to starting position. Do not let the barbell touch the floor once you have begun the exercise. Keep your head up and the back straight.

▲ Medium Grip Bent Over Barbell Rowing

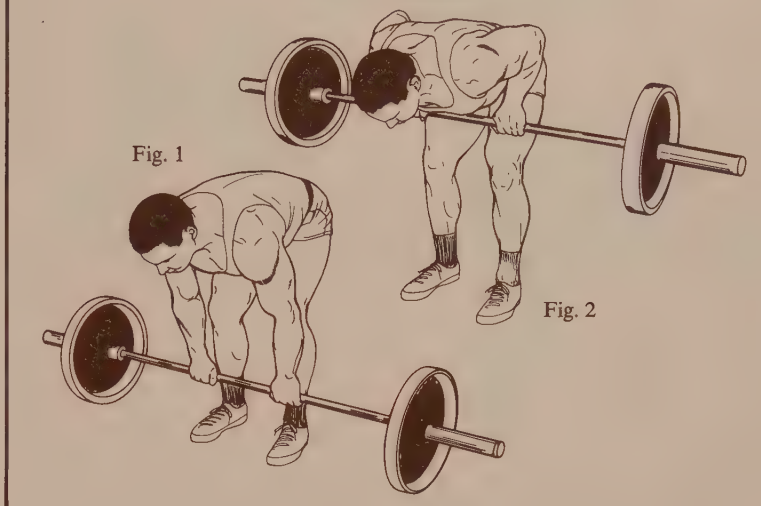
Place a barbell on the floor in front of you. With your feet about eighteen inches apart bend down and get a grip on the barbell that is about twenty-six inches wide. Keep the legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Exhale as the barbell returns to starting position. Do not let the barbell touch the floor once you have begun the exercise. Keep your head up and your back straight.

▲ Wide Grip Bent Over Barbell Rowing

Place a barbell on the floor in front of you. With your feet about eighteen inches apart, bend down and get a grip on the barbell that is as wide as is comfortably possible. Keep your legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Do not let the barbell touch the floor once you have begun the exercise. Keep your head up and your back straight.

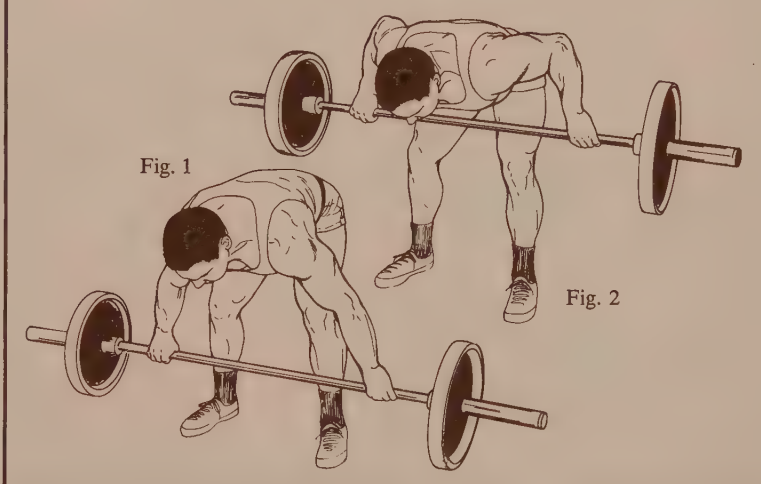
CLOSE GRIP BENT OVER BARBELL ROWING

Lower lats



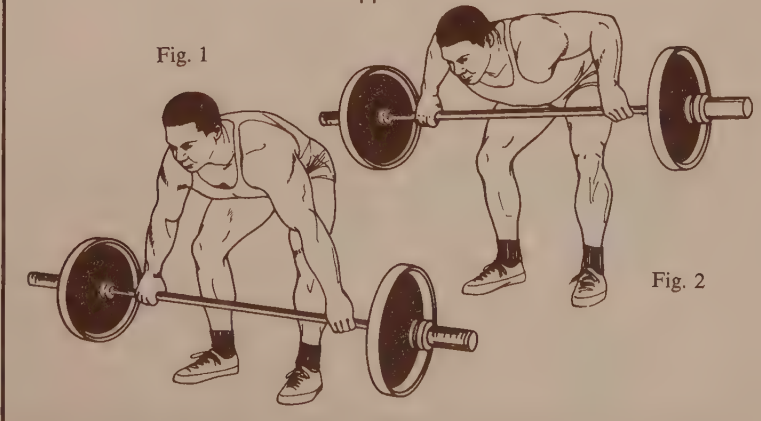
MEDIUM GRIP BENT OVER BARBELL ROWING

Lats



WIDE GRIP BENT OVER BARBELL ROWING

Upper lats



REVERSE CLOSE GRIP BENT OVER HEAD SUPPORTED ROWING

Upper lats

Fig. 1

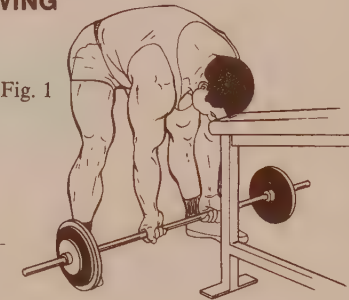
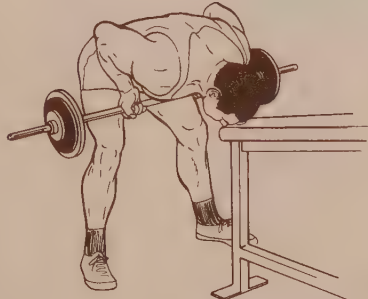


Fig. 2



CLOSE GRIP BENT OVER HEAD SUPPORTED BARBELL ROWING

Lower lats

Fig. 1

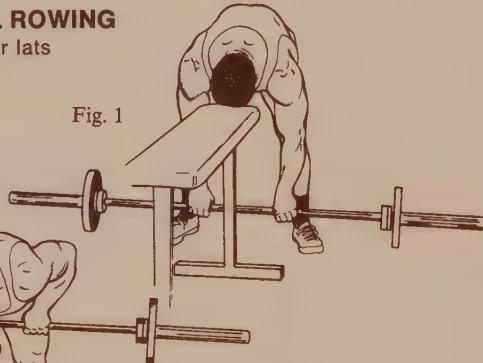
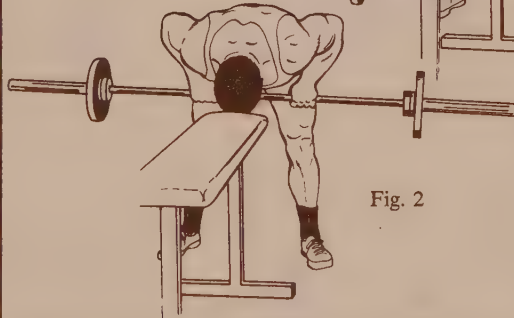


Fig. 2



WIDE GRIP BENT OVER HEAD SUPPORTED BARBELL ROWING

Upper lats

Fig. 1

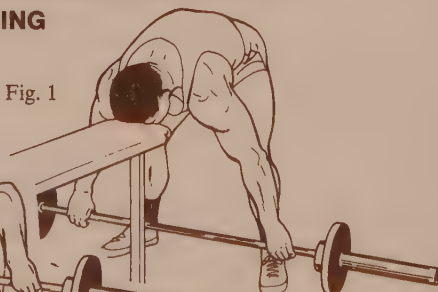
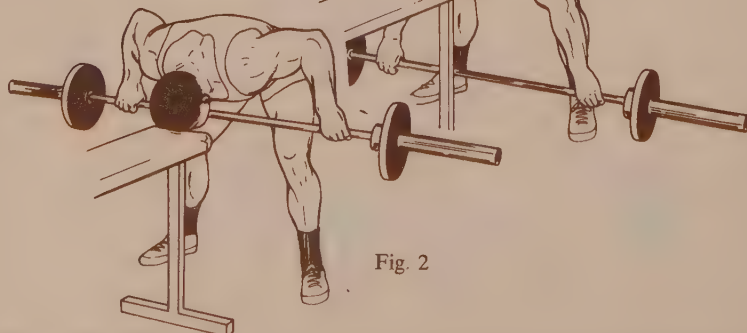


Fig. 2



■ Reverse Close Grip Bent Over Head Supported Barbell Rowing

Place a barbell on the floor at the end of a tall flat bench. Bend over and grasp the bar using a palms forward grip about twelve inches wide. Place your forehead on the end of the bench and keep your back straight. Have your feet about twenty-four inches apart with your knees slightly bent. With the bar hanging straight down at arm's length, inhale and pull the bar up to your chest in line with your lower pectorals. Return the bar to arm's length and exhale. Do not let the weight touch the floor once the exercise has begun.

▲ One Arm Rowing Off Bench

Lats

Place a dumbbell on the right side of a bench that is about eighteen inches tall. Put your left knee and lower leg on a bench and place your left arm on the bench in line with your shoulder in a locked position. Reach down and grasp the dumbbell with your right hand. Raise the dumbbell off the floor until you are holding it at arm's length with your back straight and your left arm locked out. Inhale and pull the dumbbell up to your right side until the top of your right hand touches your lower rib cage. Lower the weight back to arm's length and exhale. Change position and do the same number of repetitions on the left side.

▲ Close Grip Bent Over Head Supported Barbell Rowing

Place a barbell on the floor in front of you. With your feet about eighteen inches apart, bend down and get a grip on the barbell that is about fourteen inches wide. Place your forehead on a comfortable object that is about waist high. Keep your legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Do not let the barbell touch the floor as you lower it to starting position and exhale.

▲ Wide Grip Bent Over Head Supported Barbell Rowing

Place a barbell on the floor in front of you. With your feet about eighteen inches apart, bend down and get a grip on the barbell this is as wide as is comfortable. Place your forehead on a comfortable object that is about waist high. Keep your legs bent and

your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Do not let the barbell touch the floor as you lower it to starting position and exhale.

▲ Medium Grip Bent Over Head Supported Barbell Rowing

Lats

Place a barbell on the floor in front of you. With your feet about eighteen inches apart, bend down and get a grip on the barbell about twenty-four inches wide. Place your forehead on a comfortable object that is about waist high. Keep your legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Do not let the barbell touch the floor as you lower it to starting position and exhale.

■ Reverse Medium Grip Bent Over Head Supported Barbell Rowing

Place a barbell on the floor in front of you. With your feet about eighteen inches apart bend down and get a reverse grip on the barbell that is about twenty-six inches wide. Rest your forehead on a comfortable object that is about waist high. Keep your legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Exhale as the barbell returns to starting position. Do not let the barbell touch the floor once you have begun the exercise.

■ Reverse Wide Grip Bent Over Head Supported Barbell Rowing

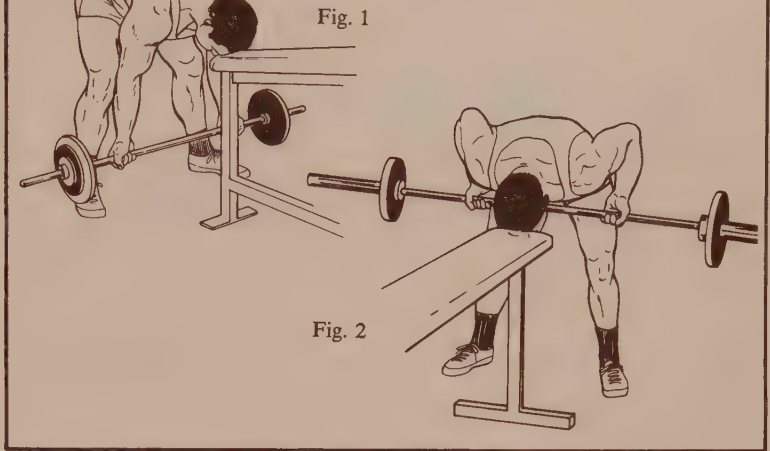
Place a barbell on the floor in front of you. With your feet about eighteen inches apart bend down and get a reverse grip on the barbell that is about thirty-six inches wide. Rest your forehead on a comfortable object that is about waist high. Keep your legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Exhale as the barbell returns to starting position. Do not let the barbell touch the floor once you have begun the exercise.

■ Bent Over Two Dumbbell Rowing

Using a very close foot stance, place a dumbbell at each side of your feet. Bend

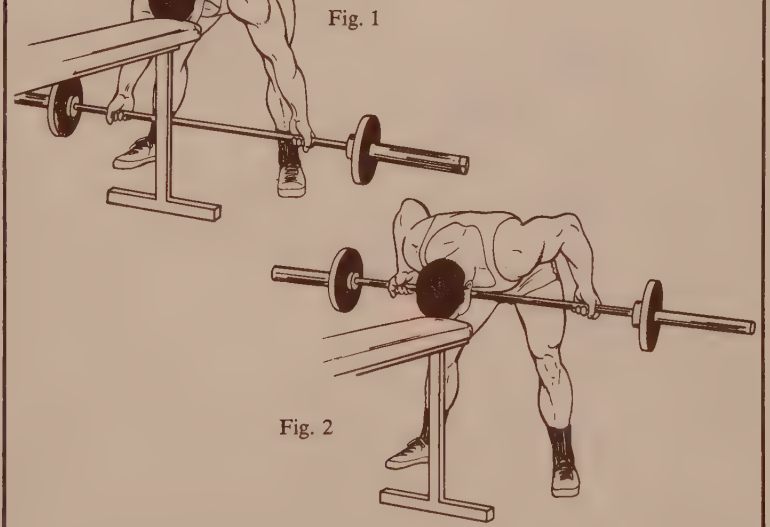
REVERSE MEDIUM GRIP BENT OVER HEAD SUPPORTED BARBELL ROWING

Lats



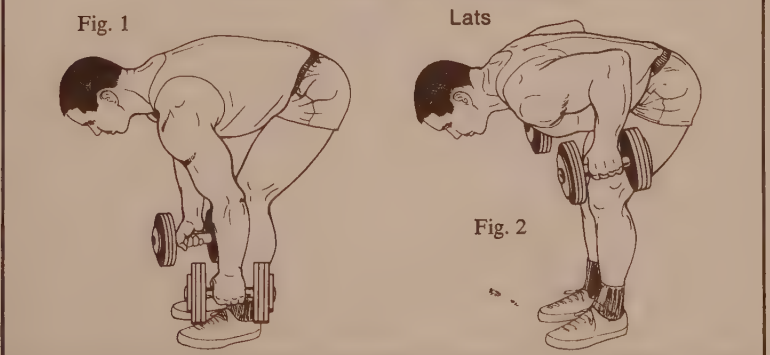
REVERSE WIDE GRIP BENT OVER HEAD SUPPORTED BARBELL ROWING

Upper lats



BENT OVER TWO DUMBBELL ROWING

Lats



BENT OVER HEAD SUPPORTED TWO DUMBBELL ROWING

Lats

Fig. 1

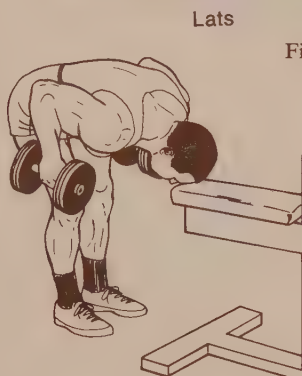
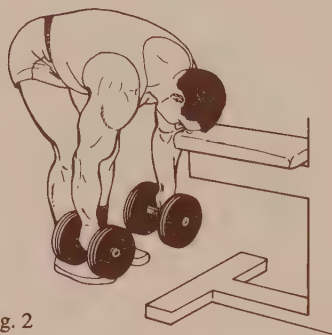


Fig. 2



HAND ON BENCH ONE ARM DUMBBELL ROWING

Upper and lower lats

Fig. 1

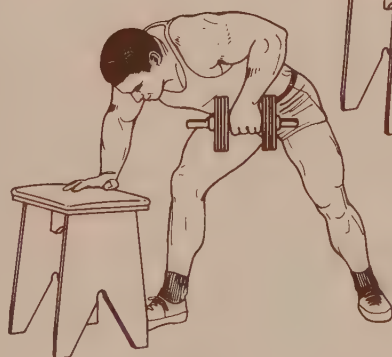
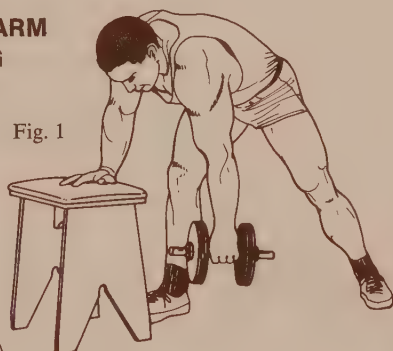


Fig. 2



BENT OVER DUMBBELL ROWING

Lats

Fig. 1

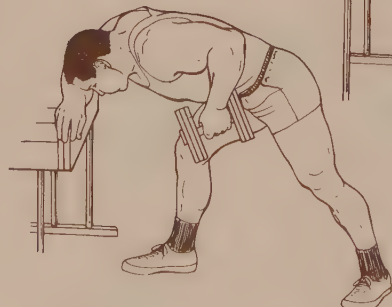
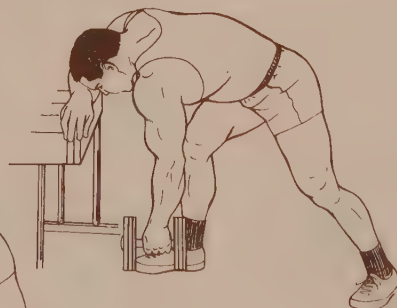


Fig. 2



at the waist and grasp the dumbbells with both hands with your legs slightly bent to take the pressure off your lower back. Inhale and pull both dumbbells directly up to the sides of your chest. Inhale as you pull the weights up and exhale as you let them back to starting position. Do not let the dumbbells touch the floor once you have begun the exercise. Keep your head up and your back straight.

■ Bent Over Head Supported Two Dumbbell Rowing

Using a very close foot stance, place a dumbbell at each side of your feet. Bend at the waist and rest your forehead on a comfortable object that is about waist high. Grasp the dumbbell with both hands with your legs slightly bent to help take the pressure off your lower back. Inhale and pull both dumbbells directly up to the sides of your chest. Inhale as you pull the weights up and exhale as you let them back to starting position. Do not let the dumbbells touch the floor once you have begun the exercise.

▲ Hand on Bench One Arm Dumbbell Rowing

Place a dumbbell on the floor in front of a bench. Put your left leg back, keeping your left knee locked. Bend the right leg slightly as you bend down and grasp the dumbbell with your left hand, using a palms in grip. Place your right hand on the bench and lock the elbow. With the dumbbell in your left hand hanging straight down and off the floor about six inches, inhale and pull the dumbbell straight up to the side of your chest, keeping your arm in close. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions. Be sure the dumbbell does not touch the floor once the exercise has begun.

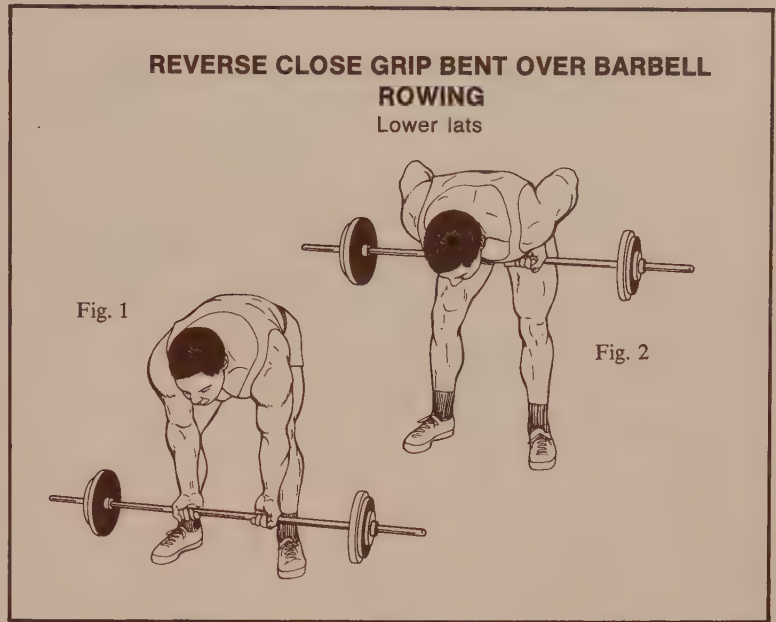
▲ Bent Over Dumbbell Rowing

Place a dumbbell on the floor beside an object that is about waist high and will enable you to rest your left forearm on it while resting your forehead on your forearm as you bend at the waist. Put your right foot directly behind you about thirty-six inches back and lock out your knee to keep your leg straight. Have a slight bend to your left leg. Reach down and grasp the dumbbell with your right hand and pull it directly up to the side of your chest. Inhale as you pull

the weight up and exhale as you let it back to starting position. Do not let the weight touch the floor once you begin the exercise. Do the prescribed number of repetitions with your right hand and then do the same number of repetitions with your left hand.

▲ Reverse Close Grip Bent Over Barbell Rowing

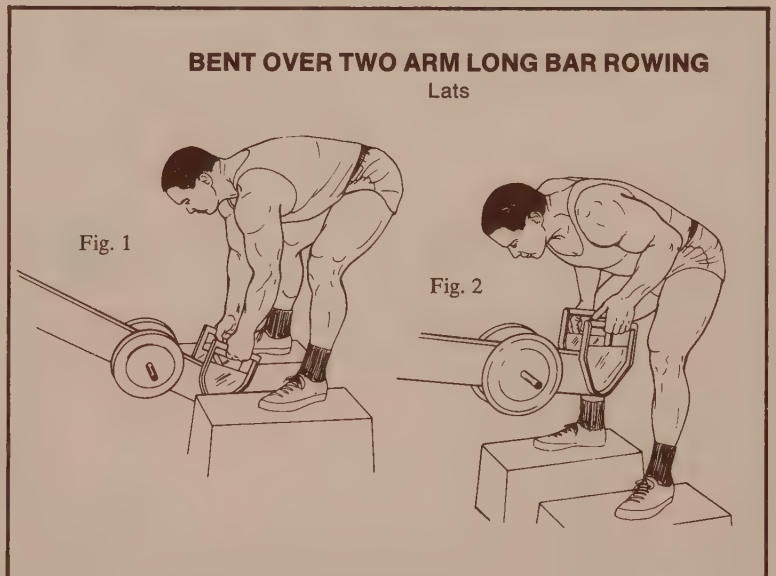
Place a barbell on the floor in front of you. With your feet about eighteen inches apart bend down and get a reverse grip on the barbell that is about fourteen inches wide. Keep the legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Exhale as the bar returns to starting position. Do not let the barbell touch the floor once you have begun the exercise. Keep your head up and your back straight.



▲ Reverse Medium Grip Bent Over Barbell Rowing

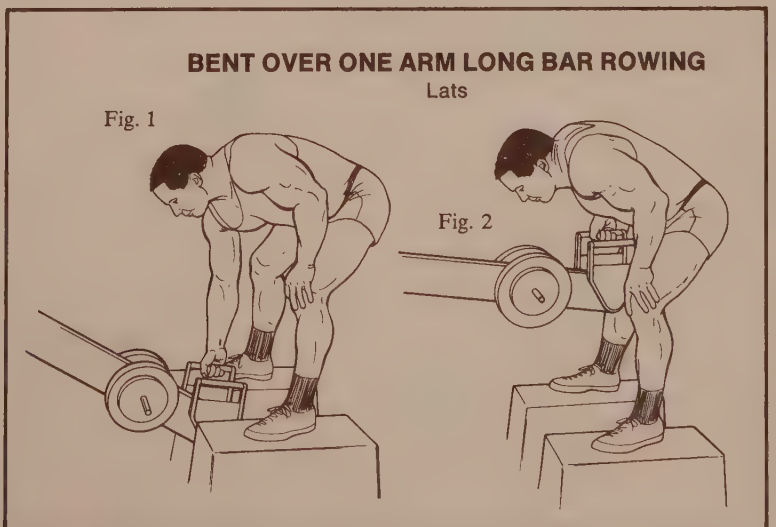
Lats

Place a barbell on the floor in front of you. With your feet about eighteen inches apart bend down and get a reverse grip on the barbell that is about twenty-six inches wide. Keep your legs bent and your back parallel to the floor as you inhale and pull the barbell directly up to the lower part of your chest. Exhale as the barbell returns to starting position. Do not let the barbell touch the floor once you have begun the exercise. Keep your head up and your back straight.



▲ Bent Over Two Arm Long Bar Rowing

Straddle a rowing bar with your feet about thirty-six inches apart. Bend down and grasp the bar with both hands. Keep your knees bent and your back straight but bent to about a 45° angle. Inhale and pull the bar up until the tops of your hands touch the lower part of your rib cage. Lower the bar to starting position and exhale. Do not let the weights touch the floor once you have begun the exercise. Keep the same fixed body position.



▲ Bent Over One Arm Long Bar Rowing

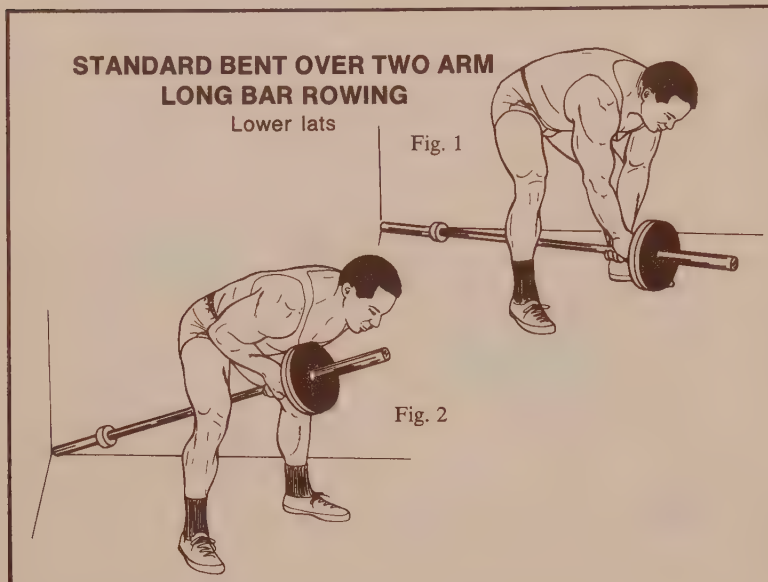
Straddle a rowing bar with your feet about thirty-six inches apart. Bend down and grasp the bar with your right hand. Keep your knees bent and place your left hand on your lower left thigh to help support your upper body. Keep your back straight and bent to about a 45° angle. Inhale and pull the bar up until the top of your right hand

STANDARD BENT OVER TWO ARM LONG BAR ROWING

Lower lats

Fig. 1

Fig. 2

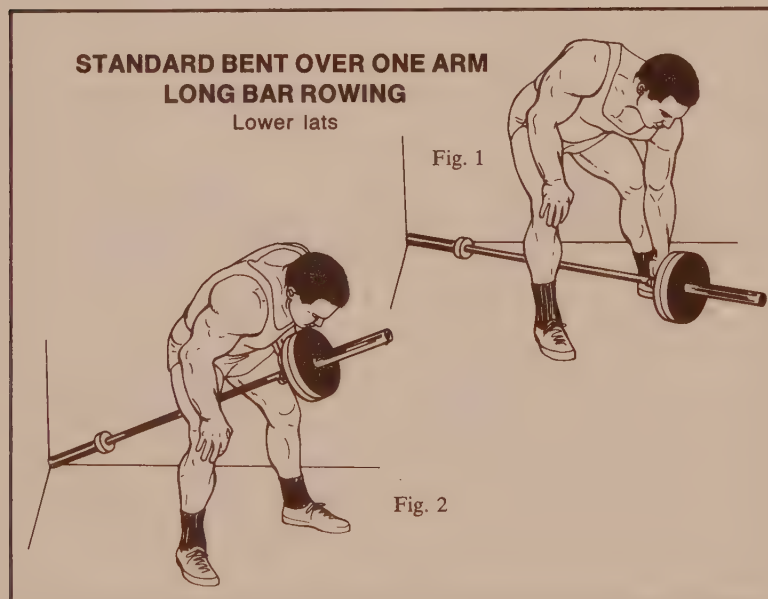


STANDARD BENT OVER ONE ARM LONG BAR ROWING

Lower lats

Fig. 1

Fig. 2

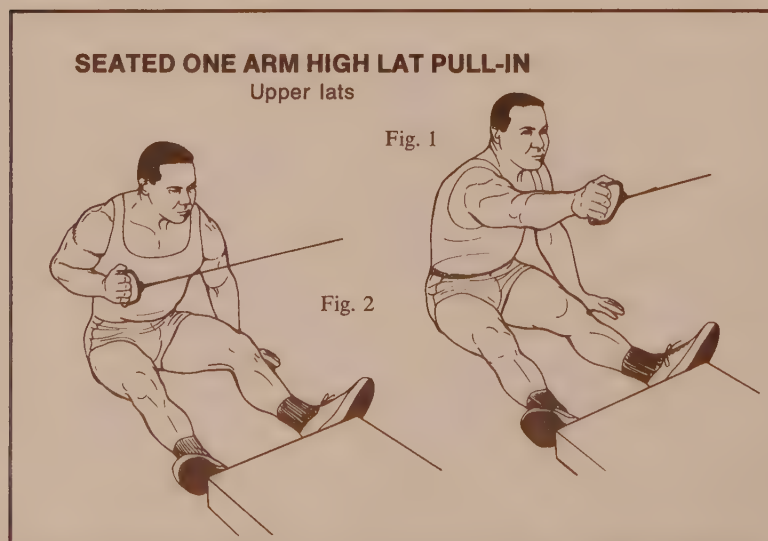


SEATED ONE ARM HIGH LAT PULL-IN

Upper lats

Fig. 1

Fig. 2



touches the lower part of your rib cage. Lower the bar to starting position and exhale. Do not let the weights touch the floor once you have begun the exercise. Keep the same fixed body position. Do the prescribed number of repetitions on the right side and change positions, doing the same number of repetitions on the left side.

▲ Standard Bent Over Two Arm Long Bar Rowing

Place an empty barbell bar in a corner or against an object that will keep one end of the bar stable. Put a desired amount of barbell plates on the other end of the bar. Straddle the bar and bend down until your upper back is parallel and keep a slight bend to your legs. Grasp the barbell just behind the plates and inhale as you pull the bar straight up, with your elbows in, until the plates touch your chest about in the middle of your pectorals. Lower the bar back to starting position and exhale. Be sure not to let the weighted end of the bar touch the floor once the exercise has begun and keep your back straight.

■ Standard Bent Over One Arm Long Bar Rowing

Place an empty barbell bar in a corner or against an object that will keep one end of the bar stable. Put a desired amount of barbell plates on the other end of the bar. Straddle the bar and bend down until your upper back is parallel and keep a slight bend to your legs. Grasp the barbell just behind the plates with your right hand and place your left hand on the upper knee of your left leg for support. Inhale as you pull the bar straight up, with your elbow in, until the plates touch your chest about in the middle of your pectorals. Lower the bar back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side. Be sure not to let the weighted end of the bar touch the floor once the exercise has begun and keep your back straight.

▲ Seated One Arm High Lat Pull-In

Sit on the floor in front of a wall pulley with the cable about eight feet high. Place your left foot against an object that will enable you to support the weight stack with your right arm as you grasp the pulley handle while seated in a bent-forward position. You must maintain this bent-forward position throughout the entire exercise and not

bend backwards and forwards at the waist. Inhale and pull the cable with your right arm directly to the right side of your chest just below the pectoral. Let the weight stack back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

▲ Standing Bent Over Medium Height One Arm Lat Pull-In

Stand in front of a wall pulley with the lower pulley about waist high. Step back far enough from the pulley to enable your right arm to support the weight stack as you bend at the waist, keeping your back parallel to the floor and your left hand on your left thigh to help support your upper body. Inhale and pull the pulley cable in your right hand to the side of your right chest even with the pectoral. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions to the left side, doing the same number of repetitions.

▲ Standing Bent Over Medium Height Alternated Lat Pull-In

Stand in front of a wall pulley with the lower pulley about waist high. Step back far enough from the pulley to enable your arms to support the weight stacks as you bend at the waist, keeping your back parallel to the floor. With your arms extended in front of you, inhale and pull the pulley cable in your right hand to the side of your right chest even with the right pectoral. As you commence to return your right arm to starting position, begin pulling your left hand to the side of your left chest even with your left pectoral. As the right returns to starting position the left will be at your side. Inhale as you pull with your right arm and exhale as you pull with your left arm. A repetition to the right and left is considered one repetition.

▲ Standing Bent Over Two Arm Low Lat Pull-In

Stand in front of a low pulley and grasp the pulley handles with both hands. Step back far enough away from the pulley to enable you to support the weight stacks as you bend at the waist keeping your upper body parallel to the floor. Inhale and pull the cables up to the sides of your chest just below the pectorals. Let the weight stacks back to starting position and exhale. Do

STANDING BENT OVER MEDIUM HEIGHT ONE ARM LOW LAT PULL-IN

Upper lats

Fig. 1

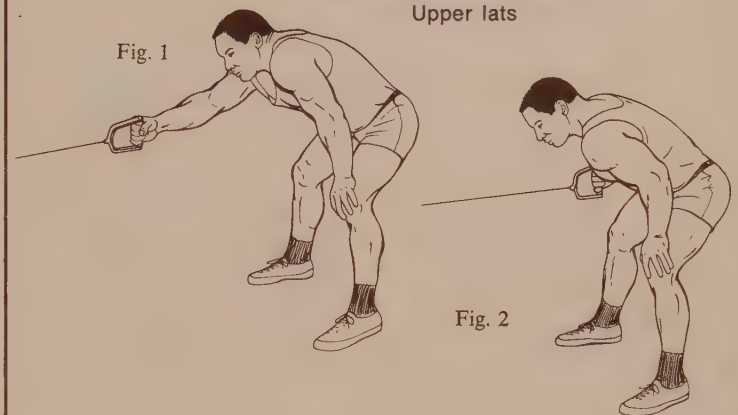
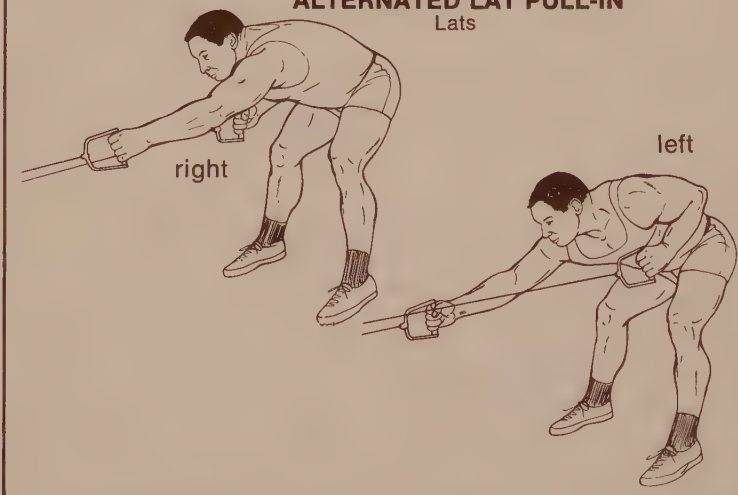


Fig. 2

STANDING BENT OVER MEDIUM HEIGHT ALTERNATED LAT PULL-IN

Lats



STANDING BENT OVER TWO ARM LOW LAT PULL-IN

Lower lats

Fig. 1

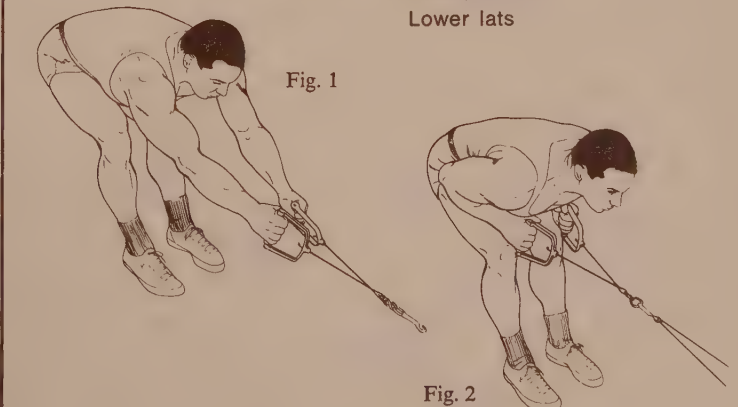


Fig. 2

STANDING BENT OVER TWO ARM MEDIUM HEIGHT LAT PULL-IN

Upper lats

Fig. 1

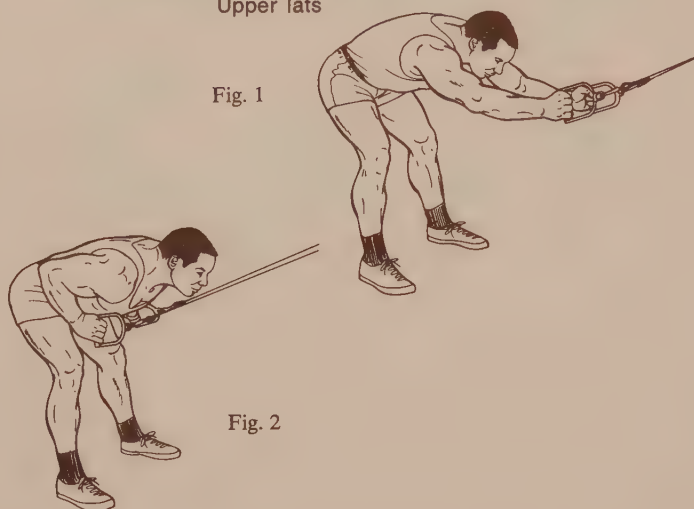


Fig. 2

SEATED TWO ARM MEDIUM HEIGHT LAT PULL-IN

Lats

Fig. 1

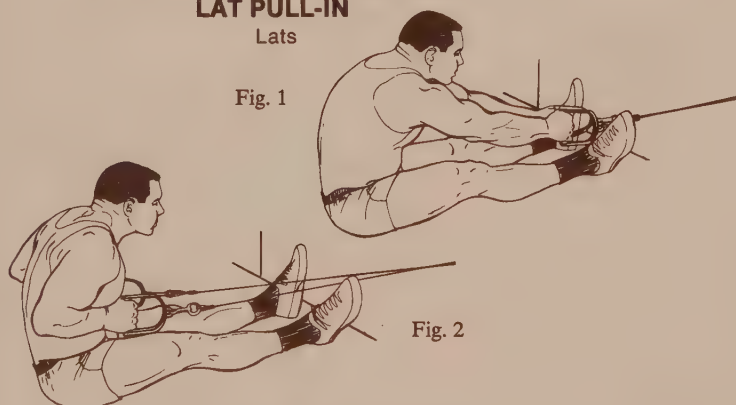


Fig. 2

SEATED TWO ARM LOW LAT PULL-IN

Lower lats

Fig. 1

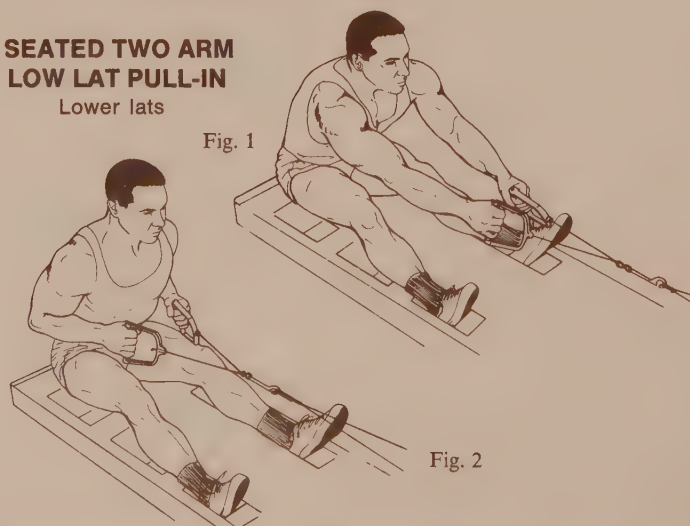


Fig. 2

not bend backwards and forwards at the waist while doing the exercise.

▲ Standing Bent Over Two Arm High Lat Pull-In

Upper lats

Stand in front of a wall pulley with the pulley cable about eight feet high. Step back far enough away from the pulleys to enable you to support the weight stacks as you bend at the waist keeping the upper body just above parallel to the floor. Inhale and pull the pulley cables down to the sides of your chest even with the pectorals. Let the weight stacks back to starting position and exhale. Do not bend backwards or forwards at the waist while doing the exercise.

▲ Standing Bent Over Two Arm Medium Height Lat Pull-In

Stand in front of a wall pulley with the pulley cable about five feet high. Step back far enough away from the pulleys to enable you to support the weight stacks as you bend at the waist, keeping the upper body just above parallel to the floor. Inhale and pull the pulley cables down to the sides of your chest even with the pectorals. Let the weight stacks back to starting position and exhale. Do not bend backwards or forwards at the waist while doing the exercise.

▲ Seated Two Arm Medium Height Lat Pull-In

Sit on the floor in front of a wall pulley with the lower pulley about eye level. Place your feet against an object that will enable you to support the weight stacks with both arms as you grasp the pulley handles while seated in a bent-forward position. You must maintain this bent-forward position throughout the entire exercise. Do not bend backwards and forwards at the waist. Inhale and pull the cables directly to the sides of your chest just below the pectorals. Let the weight stacks back to starting position and exhale.

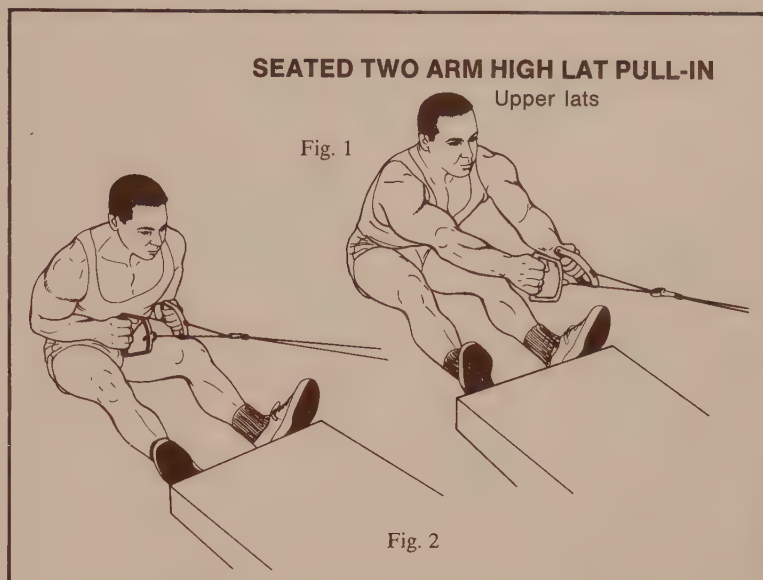
▲ Seated Two Arm Low Lat Pull-In

Sit on the floor in front of a low pulley and place your feet against an object that will enable you to support the weight stacks with both arms as you grasp the pulley handles while seated in a bent-forward position. You must maintain this bent-forward position throughout the entire exercise. Do not bend backwards and forwards at the waist. Inhale and pull the

cables directly to the sides of your chest just below the pectorals. Let the weight stacks back to starting position and exhale.

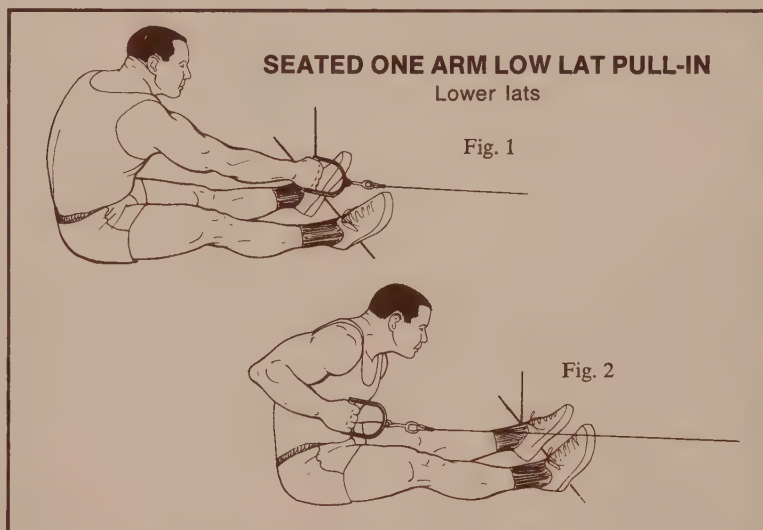
▲ Seated Two Arm High Lat Pull-In

Sit on the floor in front of a wall pulley with the cable about eight feet high. Place your feet against an object that will enable you to support the weight stacks with both arms as you grasp the pulley handles while seated in a bent-forward position. You must maintain this bent-forward position throughout the entire exercise. Do not bend backwards and forwards at the waist. Inhale and pull the cables directly to the sides of your chest just below the pectorals. Let the weight stacks back to starting position and exhale.



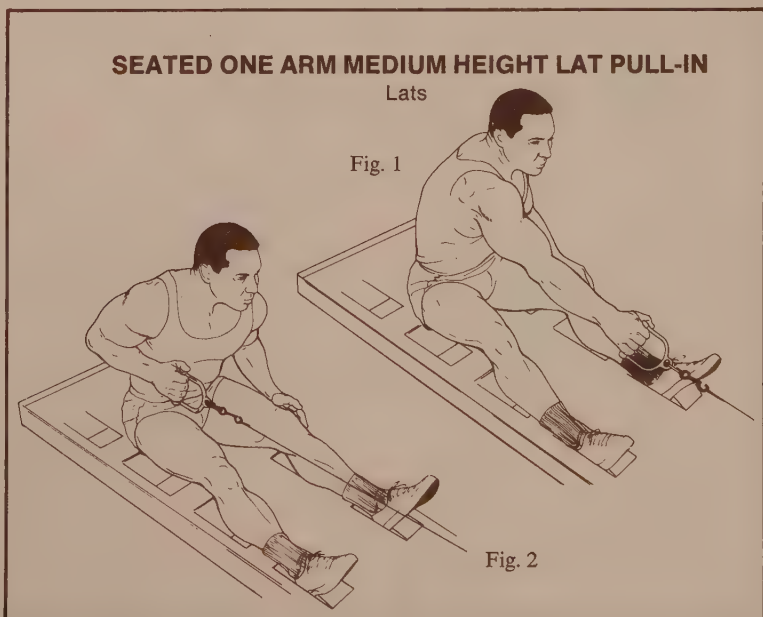
▲ Seated One Arm Low Lat Pull-In

Sit on the floor in front of a low pulley and place your left foot against an object that will enable you to support the weight stack with your right arm as you grasp the pulley handle while seated in a bent-forward position. You must maintain this bent-forward position throughout the entire exercise and not bend backwards and forwards at the waist. Inhale and pull the cable with your right arm directly to the right side of your chest just below the pectoral. Let the weight stack back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.



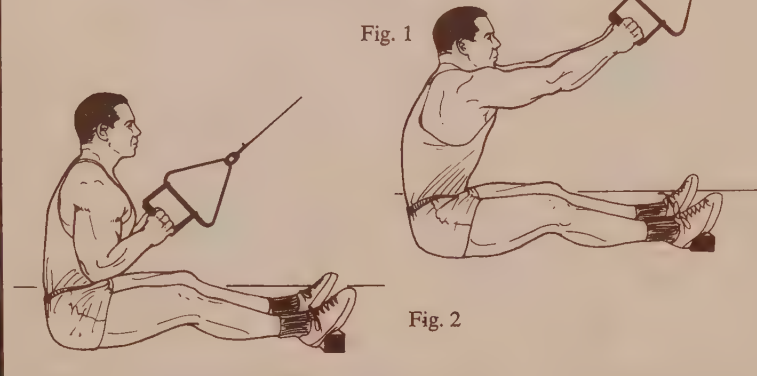
▲ Seated One Arm Medium Height Lat Pull-In

Sit on the floor in front of a wall pulley with the lower pulley about eye level. Place your left foot against an object that will enable you to support the weight stack with your right arm as you grasp the pulley handle while seated in a bent-forward position. You must maintain this bent-forward position throughout the entire exercise and not bend backwards and forwards at waist. Inhale and pull the cable with your right arm directly to the right side of your chest just below the pectoral. Let the weight stack back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.



SEATED FLOOR TWO ARM TRIANGLE BAR LAT PULL-IN ON HIGH PULLEY

Upper and lower lats

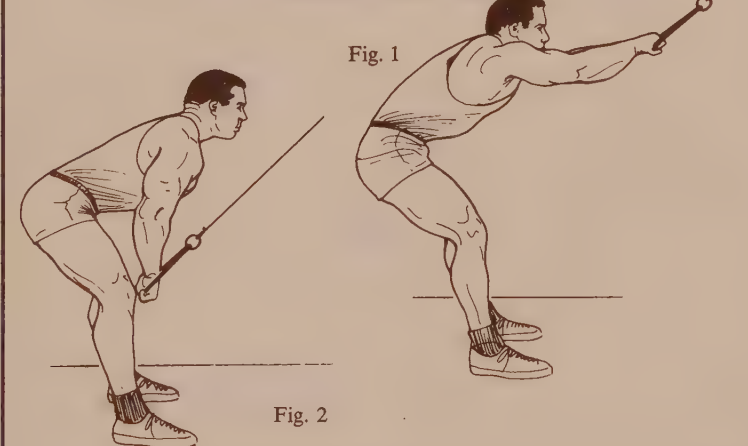


▲ Seated Floor Two Arm Triangle Bar Lat Pull-In on High Pulley

Place a triangular bar to the end of the cable to a high pulley. Then place a close grip chinning bar attachment around the triangular bar to enable you to use a palms facing grip for the exercise. Sit back far enough from the high pulley to raise the weight stack up as you grasp the chinning bar attachment with both hands, keeping your back straight, head up and arms extended out in front of you. Inhale and pull the bar straight in to your upper chest, keeping your arms close to your sides coming and going. Return to starting position and exhale.

STANDING BENT OVER TRIANGLE BAR STRAIGHT ARM LAT PULL-DOWN ON HIGH PULLEY

Upper and lower lats



▲ Standing Bent Over Triangle Bar

Straight Arm Lat Pull-Down on High Pulley

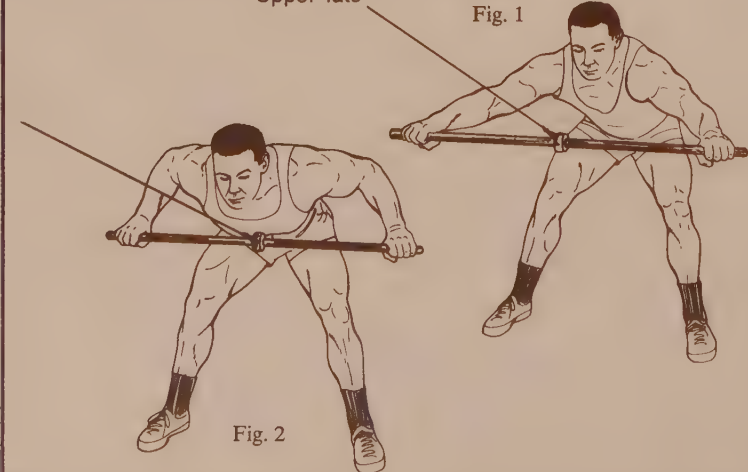
Place a triangular bar to the end of the cable of a high pulley. Stand back far enough from the high pulley to raise the weight stack up as you grasp the bar with both hands using a close grip and bending forward at the waist, keeping your back straight, head up and feet about twenty-four inches apart with your knees slightly bent, using a palms down grip with your arms extended out in front of you. Inhale and pull the bar straight down, keeping your elbows locked until the bar nearly touches your knees. Return to starting position and exhale.

▲ STANDING BENT OVER STRAIGHT ARM LAT PULL-DOWN ON HIGH WALL PULLEY

Lats

STANDING BENT OVER WIDE GRIP BAR LAT PULL-IN ON HIGH PULLEY

Upper lats



▲ Standing Bent Over Wide Grip Bar Lat Pull-In on High Pulley

Place a bar that is about forty-two inches long to the end of the cable of a high pulley. Stand back far enough from the high pulley to raise the weight stack up as you grasp the bar with a hand grip about thirty-six inches apart and bend forward at the waist, keeping your back straight, head up and feet about twenty-four inches apart with your knees slightly bent, using a palms down grip with your arms extended out in front of you. Inhale and pull the bar straight in, keeping your upper arms in close as possible to your sides, until the bar is about even with your lower pectorals. Return to starting position and exhale.

▲ Standing Bent Over Medium Grip Bar Lat Pull-In on High Pulley

Place a bar that is about forty-two inches long to the end of the cable of a high pulley.

Stand back far enough from the high pulley to raise the weight stack up as you grasp the bar with a hand grip about eighteen inches apart and bend forward at the waist, keeping your back straight, head up and feet about twenty-four inches apart with your knees slightly bent, using a palms down grip with your arms extended out in front of you. Inhale and pull the bar straight in, keeping your arms in close to your sides until the bar is about even with your lower pectorals. Return to starting position and exhale.

▲ Standing Bent Over Close Grip Bar Lat Pull-In on High Pulley

Place a bar that is about forty-two inches long to the end of the cable of a high pulley. Stand back far enough from the high pulley to raise the weight stack up as you grasp the bar with a hand grip about six inches apart and bend forward at the waist, keeping your back straight, head up and feet about twenty-four inches apart with your knees slightly bent, using a palms down grip with your arms extended out in front of you. Inhale and pull the bar straight in, keeping your arms in close to your sides, until the bar is about even with your lower pectorals. Return to starting position and exhale.

▲ Standing Bent Over Wide Grip Bar Lat Pull-In on Low Pulley

Place a bar that is about forty-two inches long to the end of the cable of a low pulley. Stand back far enough from the low pulley to raise the weight stack up as you grasp the bar with a hand grip about thirty-six inches apart and bend forward at the waist, keeping your back straight, head up and feet about twenty-four inches apart with your arms extended out in front of you. Inhale and pull the bar straight in, keeping your upper arms in close as possible to your sides, until the bar is about even with your lower pectorals. Return to starting position and exhale.

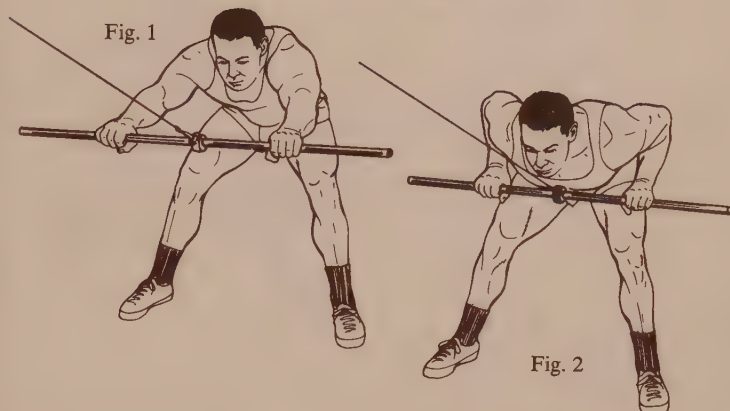
▲ Standing Bent Over Medium Grip Bar Lat Pull-In on Low Pulley

Upper lats

Place a bar that is about forty-two inches long to the end of the cable of a low pulley. Stand back far enough from the low pulley to raise the weight stack up as you grasp the bar with a hand grip about eighteen inches apart and bend forward at the waist keeping your back straight, head up and feet about twenty-four inches apart with

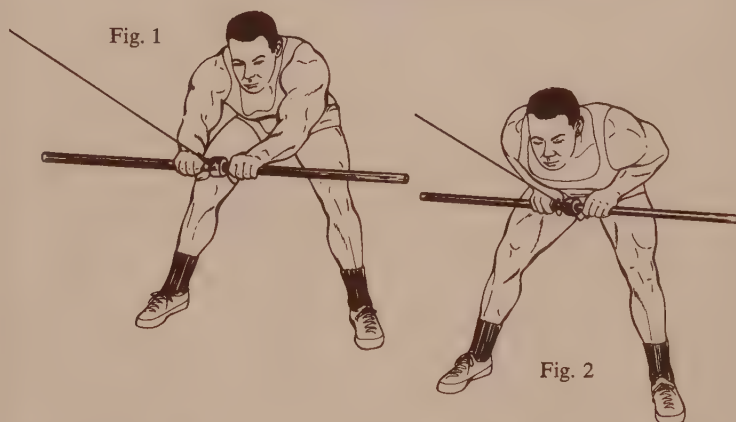
STANDING BENT OVER MEDIUM GRIP BAR LAT PULL-IN ON HIGH PULLEY

Lats



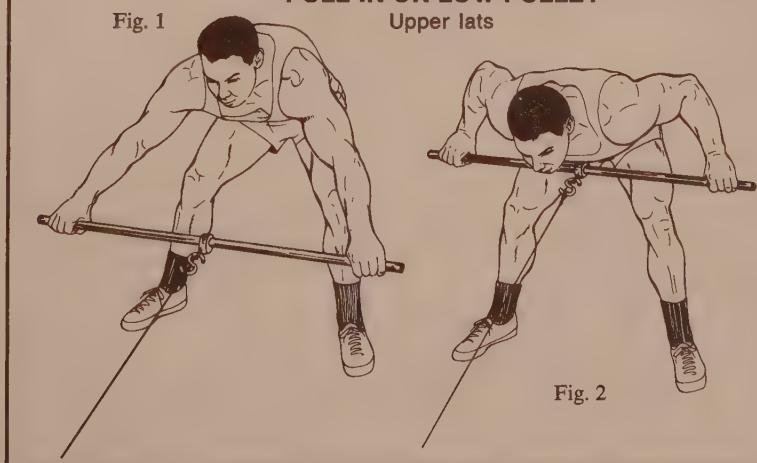
STANDING BENT OVER CLOSE GRIP BAR LAT PULL-IN ON HIGH PULLEY

Upper and lower lats



STANDING BENT OVER WIDE GRIP BAR LAT PULL-IN ON LOW PULLEY

Upper lats



STANDING BENT OVER MEDIUM GRIP BAR LAT PULL-IN ON LOW PULLEY

Lats

Fig. 1

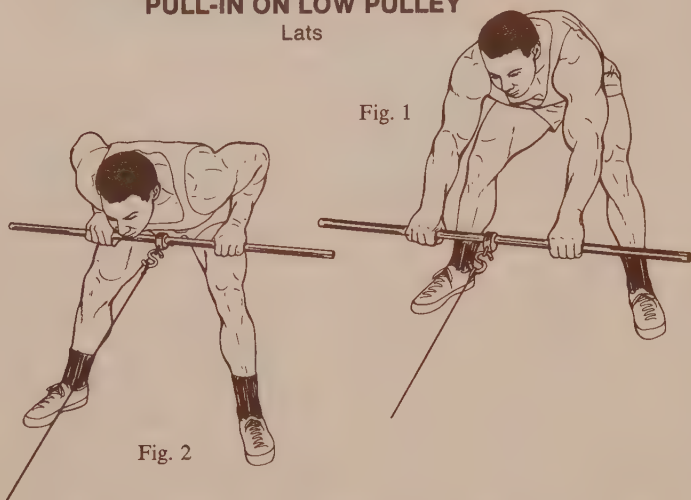


Fig. 2

STANDING BENT OVER CLOSE GRIP BAR LAT PULL-IN ON LOW PULLEY

Lower lats

Fig. 1

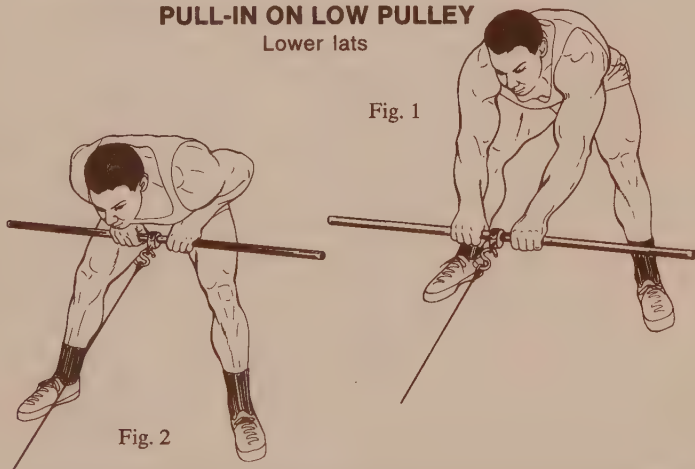


Fig. 2

SEATED FLOOR ONE ARM LOW LAT PULL-IN ON LOW WALL PULLEY

Lower lats

Fig. 1

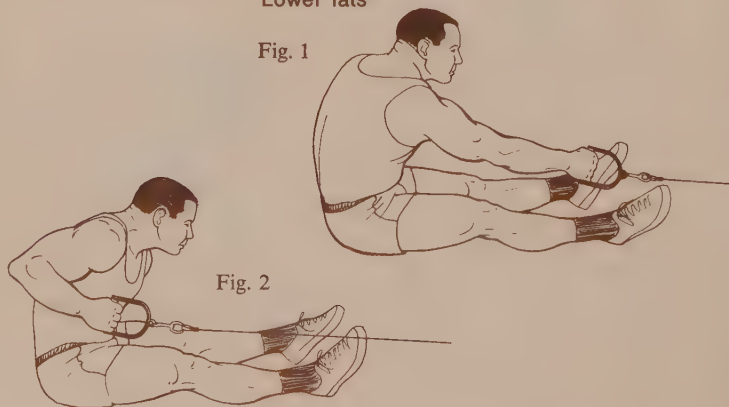


Fig. 2

your knees slightly bent, using a palms down grip with your arms extended out in front of you. Inhale and pull the bar straight in, keeping your arms in close to your sides, until the bar is about even with your lower pectorals. Return to starting position and exhale.

▲ Standing Bent Over Close Grip Bar Lat Pull-In on Low Pulley

Place a bar that is about forty-two inches long to the end of the cable of a low pulley. Stand back far enough from the low pulley to raise the weight stack up as you grasp the bar with a hand grip about six inches apart and bend forward at the waist, keeping your back straight, head up and feet about twenty-four inches apart with your knees slightly bent, using a palms down grip with your arms extended out in front of you. Inhale and pull the bar straight in, keeping your arms in close to your sides, until the bar is about even with your lower pectorals. Return to starting position and exhale.

▲ Seated Floor Low Lat Pull-In on Low Wall Pulley

Lower lats

Sit on the floor in front of a wall pulley facing the machine. Sit back far enough from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the left low pulley handle with your right hand and the right low pulley handle with your left hand, crossing the cables. Inhale and pull the handles straight in to the sides of your chest, keeping your arms in close to your sides. Return to starting position and exhale.

▲ Seated Floor One Arm Low Lat Pull-In on Low Wall Pulley

Sit on the floor in front of a wall pulley facing the machine. Sit back far enough from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the right low pulley handle with your right arm and place your left hand on your upper thigh to help support your upper body. Inhale and pull the right handle straight in to the side of your chest. Return to starting position and exhale. Do the prescribed

number of repetitions with your right arm and then change positions, doing the same number of repetitions with your left arm.

▲ Seated Floor Alternated Low Lat Pull-In on Low Wall Pulley

Sit on the floor in front of a wall pulley facing the machine. Sit back far enough from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the left low pulley handle with your right hand and the right low pulley handle with your left hand, crossing the cables. Inhale and pull the right handle straight in to the side of your chest. As you commence to return your right arm to starting position, begin pulling the left handle to the side of your chest. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Seated Low Lat Pull-In on Low Wall Pulley

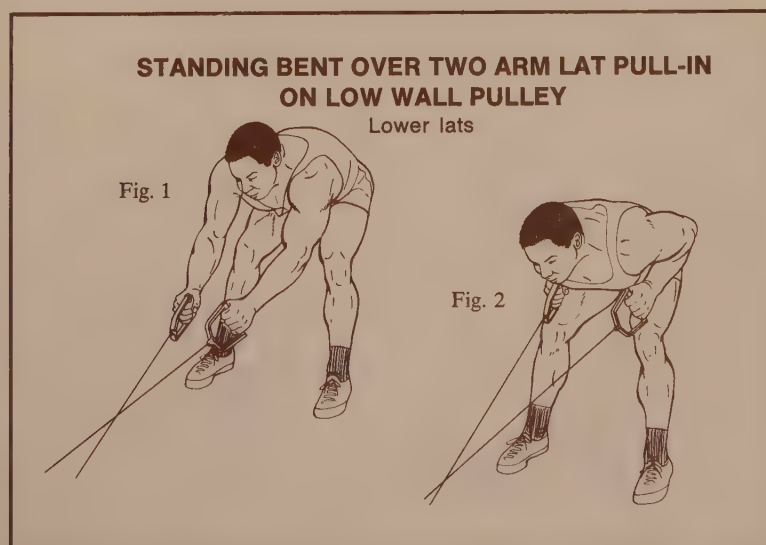
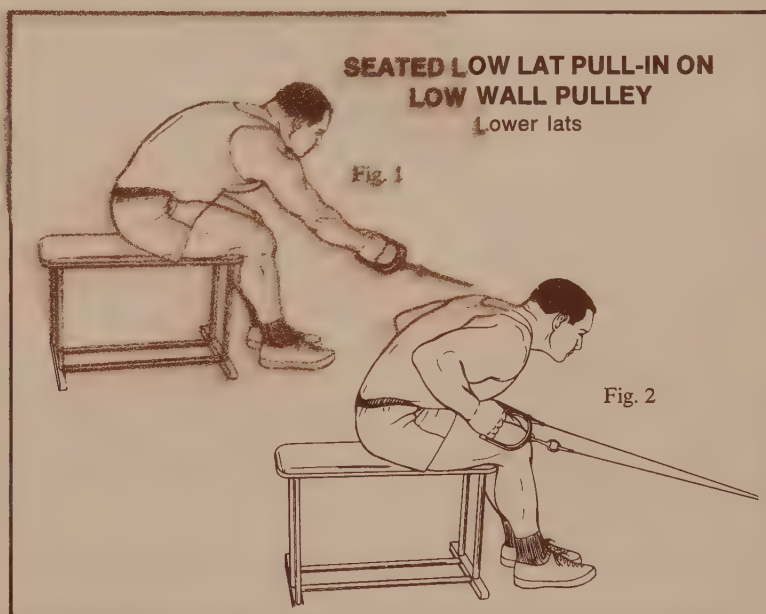
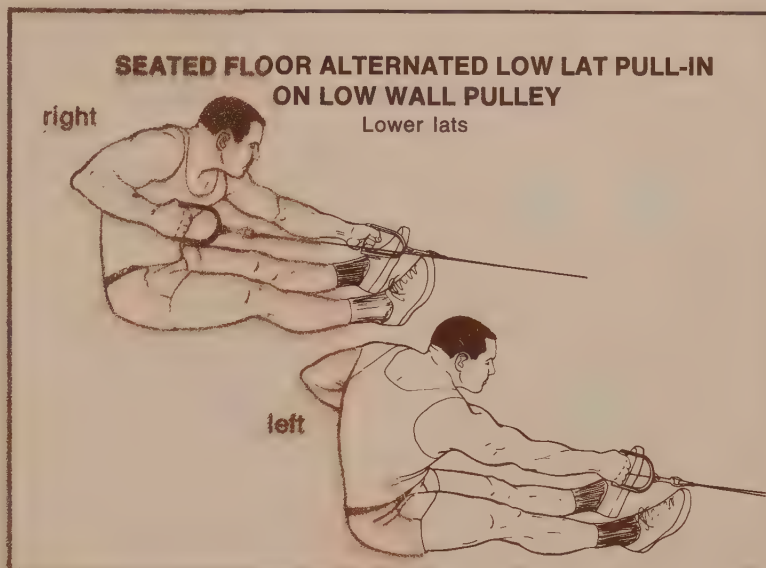
Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the right low pulley handle with your left hand and the left low pulley handle with your right hand, crossing the cables. Inhale and pull the handles straight in to the sides of your chest, keeping your arms in close to the sides. Return to starting position and exhale.

▲ Standing Bent Over Two Arm Lat Pull-In on Low Wall Pulley

Stand in front of a wall pulley. Step far enough back from the pulley to enable your arms to support the weight stacks as you bend at the waist, keeping your back parallel to the floor as you grasp the right lower pulley handle with your left hand and the left lower pulley handle with your right hand, crossing the cables. Inhale and pull the handles straight in to your sides. Your palms should be facing each other and your arms in close. Return to starting position and exhale.

▲ Seated Back Supported One Arm Straight Arm Lat Pull-Down on High Wall Pulley

Place a chair in front of a wall pulley. Sit on the chair facing the machine but far enough away to enable your right arm to to

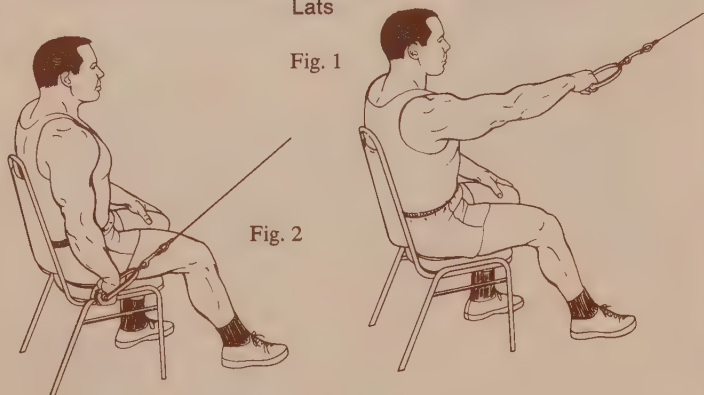


SEATED BACK SUPPORTED ONE ARM STRAIGHT ARM LAT PULL-DOWN ON HIGH WALL PULLEY

Lats

Fig. 1

Fig. 2



support the weight stack as you place your back against the support and keep your head up. Place your left hand on your upper thigh to help support your upper body. Inhale and pull the handle in your right hand straight down, with your arm locked out, until it is directly at your side. Return to starting position and exhale. Do the prescribed number of repetitions on your right side and then change positions to your left side, doing the same number of repetitions.

▲ Seated One Arm Straight Arm Lat Pull-Down on High Wall Pulley

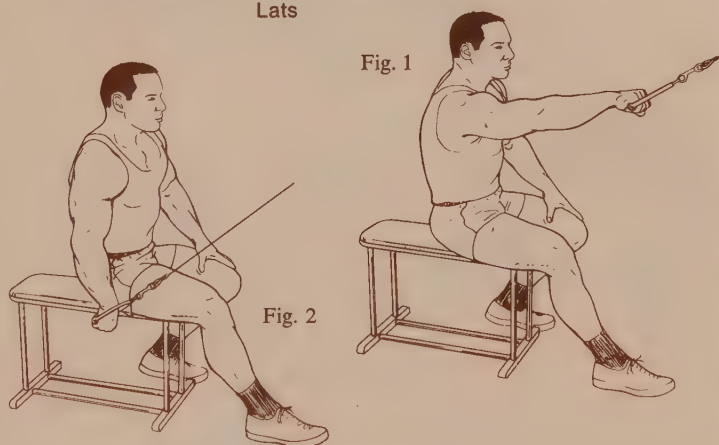
Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away to enable your right arm to support the weight stack as you keep your back straight and head up. Place your left hand on your upper thigh to help support your upper body. Inhale and pull the handle in your right hand straight down, with your arm locked out, until it is directly at your side. Return to starting position and exhale. Do the prescribed number of repetitions on your right side and then change positions to you left side doing the same number of repetitions.

SEATED ONE ARM STRAIGHT ARM LAT PULL-DOWN ON HIGH WALL PULLEY

Lats

Fig. 1

Fig. 2

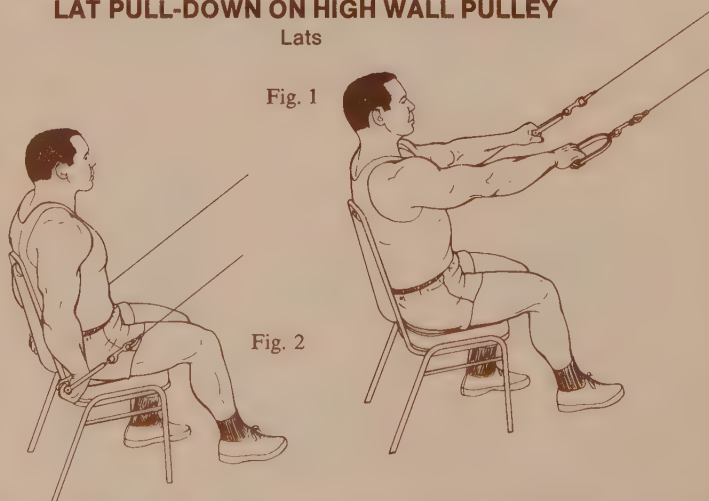


SEATED BACK SUPPORTED STRAIGHT ARM LAT PULL-DOWN ON HIGH WALL PULLEY

Lats

Fig. 1

Fig. 2



▲ Seated Back Supported Straight Arm Lat Pull-Down on High Wall Pulley

Place a chair, or some object that will give support to your back, in front of a wall pulley. Have the seat back far enough to enable your arms to support both weight stacks as you sit on the chair facing the machine. Keep your back against the support, head up, arms straight, and elbows locked out, as you inhale and pull straight down on the handles in a semicircular motion until your arms are directly at your sides. The palms of your hands should be facing to the rear of you at the down position. Return the cables to starting position and exhale.

▲ Seated Floor Straight Arm Lat Pull-Down on High Wall Pulley

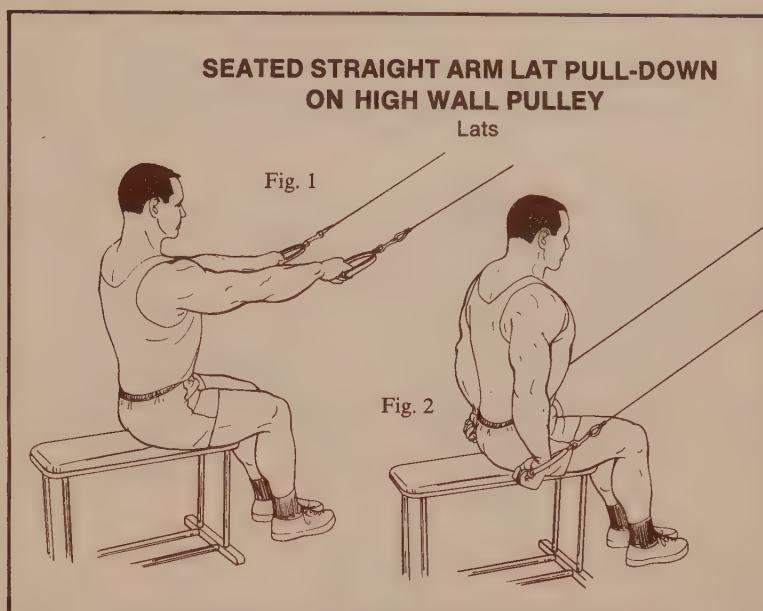
Lats

Sit on the floor in front of a wall pulley, facing the machine. Sit back far enough to enable your arms to support both weight stacks as you keep your back straight, head up, arms straight and elbows locked out, as you inhale and pull straight down on the

handles in a semicircular motion until your arms are directly at your sides. The palms of your hands should be facing to the rear of you in the down position. Return the cables to starting position and exhale.

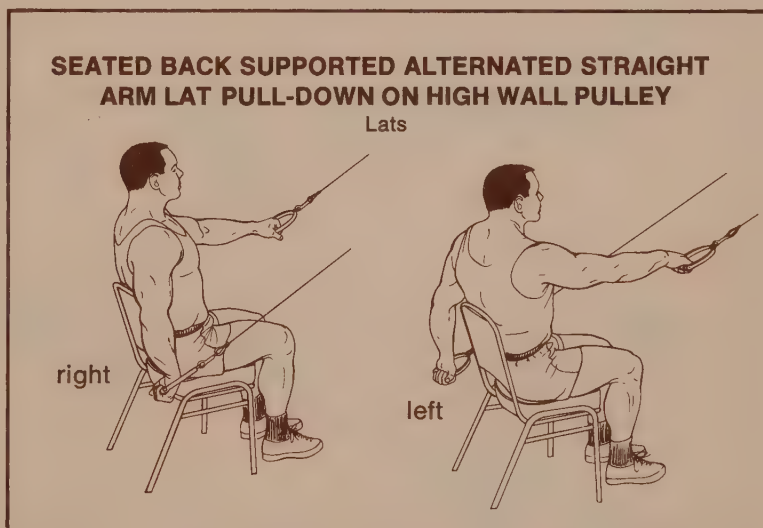
▲ Seated Straight Arm Lat Pull-Down on High Wall Pulley

Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away to enable your arms to support the weight stacks as you keep you back straight and head up. Inhale and pull both handles straight down, with your arms locked out, until they are directly at your sides. Keep your palms facing down during the exercise. Return to starting position and exhale.



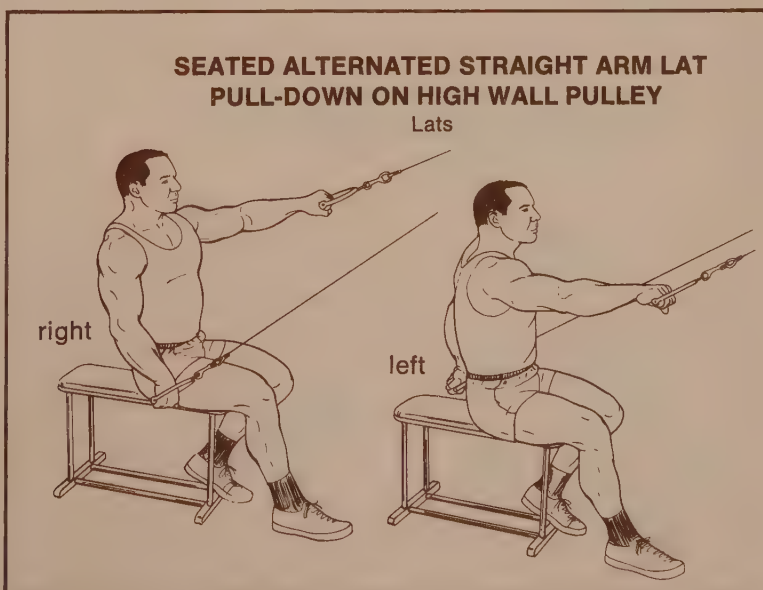
▲ Seated Back Supported Alternated Straight Arm Lat Pull-Down on High Wall Pulley

Place a chair in front of a wall pulley. Sit on the chair facing the machine but far enough away to enable your arms to support both weight stacks as you sit on the chair facing the machine. Keep your back against the support, head up, arms straight, and elbows locked out, as you inhale and pull your right arm straight down in a semicircular motion until your arm is directly at your right side. As you start to bring your right arm back to starting position, commence to lower your left arm in a similar manner so as your right arm is coming back to starting position your left arm is at your left side. Inhale as you pull with your right arm and exhale as you pull with your left arm.



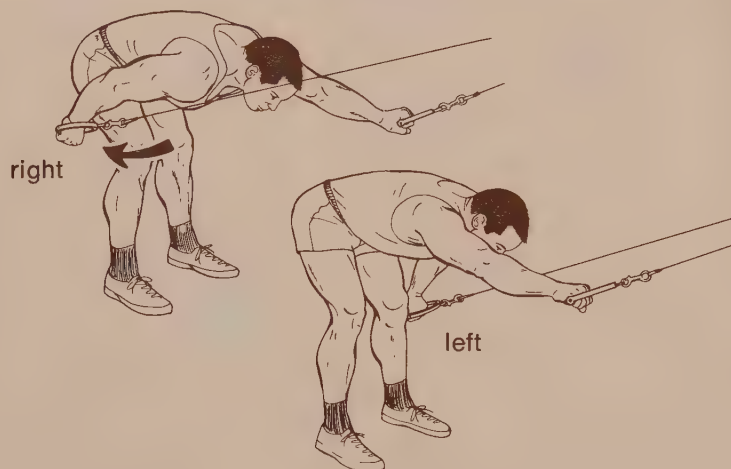
▲ Seated Alternated Straight Arm Lat Pull-Down on High Wall Pulley

Place a bench or stool in front of a wall pulley. Have the seat back far enough to enable your arms to support both weight stacks as you sit on the bench facing the machine. Keep your back vertical, head up, arms straight, and elbows locked out, as you inhale and pull your right arm straight down in a semicircular motion until your arm is directly at your right side. As you start to bring your right arm back to starting position, commence to lower your left arm in a similar manner so as your right arm is coming back to starting position your left arm is at your left side. Inhale as you pull with your right arm and exhale as you pull with your left arm.



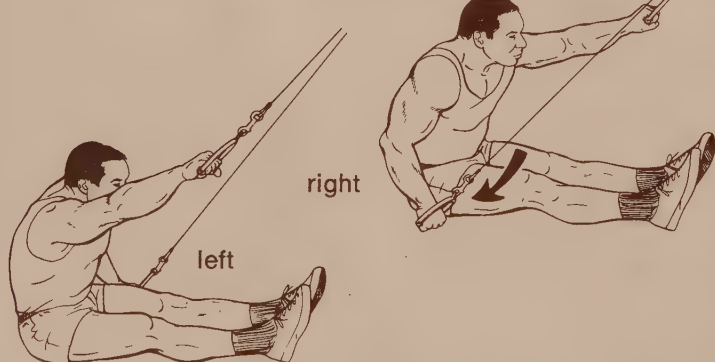
STANDING BENT OVER ALTERNATED STRAIGHT ARM LAT PULL-DOWN ON HIGH WALL PULLEY

Lats



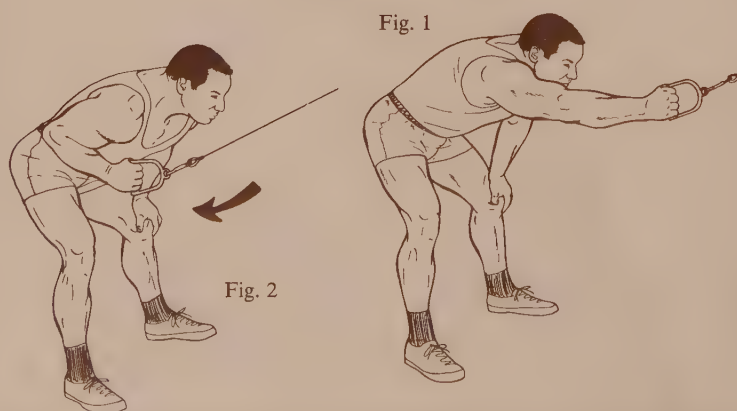
SEATED FLOOR ALTERNATED STRAIGHT ARM LAT PULL-DOWN ON HIGH WALL PULLEY

Lats



STANDING BENT OVER ONE ARM HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats



▲ Standing Bent Over Alternated Straight Arm Lat Pull-Down on High Wall Pulley

Stand in front of a wall pulley staying back far enough to enable your arms to support both weight stacks as you bend forward at the waist, keeping your head up, arms straight, and elbows locked out, as you inhale and pull your right arm straight down in a semicircular motion until your arm is directly to the side of your thigh just above your knee. As you start to bring your right arm back to starting position, commence to lower your left arm in a similar manner so as your right arm is coming back to starting position your left arm is at your left side. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Seated Floor Alternated Straight Arm Lat Pull-Down on High Wall Pulley

Sit on the floor in front of a wall pulley staying back far enough to enable your arms to support both weight stacks as you bend forward at the waist, keeping your head up, arms straight, and elbows locked out, as you inhale and pull your right arm straight down in a semicircular motion until your arm is directly to your side. As you start to bring your right arm back to starting position, commence to lower your left arm in a similar manner so as your right arm is coming back to starting position your left is at your left side. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Standing Bent Over One Arm High Lat Pull-In on High Wall Pulley

Stand in front of a wall pulley facing the machine. Stand far enough from the machine to enable your right arm to support the right weight stack as you bend forward at the waist slightly, keeping your back straight and head up. Inhale and pull the right handle to the side of your lower pectoral, keeping the palm of your hand facing in. Return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to the left hand, doing the same number of repetitions.

▲ Seated Back Supported One Arm High Lat Pull-In on High Wall Pulley

Place a chair in front of a wall pulley. Sit on the chair facing the machine but far enough away to enable your right arm to support

the right weight stack as you place your back against the support and keep your head up. Place your left hand on your upper thigh to help support your upper body. Inhale and pull the right handle to the side of your chest, keeping the palm of your hand facing in. Return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, doing the same number of repetitions.

▲ Seated One Arm High Lat Pull-In on High Wall Pulley

Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the right high pulley handle with your right hand and place your left hand on your upper thigh to help support your upper body. Inhale and pull the right handle straight in to the side of your chest. Return to starting position and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

▲ Seated Floor One Arm High Lat Pull-In on High Wall Pulley

Sit on the floor in front of a wall pulley facing the machine. Sit back far enough from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the right high pulley handle with your right hand and place your left hand on your upper thigh to help support your upper body. Inhale and pull the right handle straight in to the side of your chest. Return to starting position and exhale. Do the prescribed number of repetitions with your right arm and then change positions, doing the same number of repetitions with your left arm.

▲ Seated Back Supported Alternated High Lat Pull-In on High Wall Pulley

Lats

Place a chair in front of a wall pulley. Sit on the chair facing the machine but far enough away to enable your arms to support the weight stacks as you place your back

SEATED BACK SUPPORTED ONE ARM HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats



Fig. 2

SEATED ONE ARM HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats

Fig. 1

Fig. 2

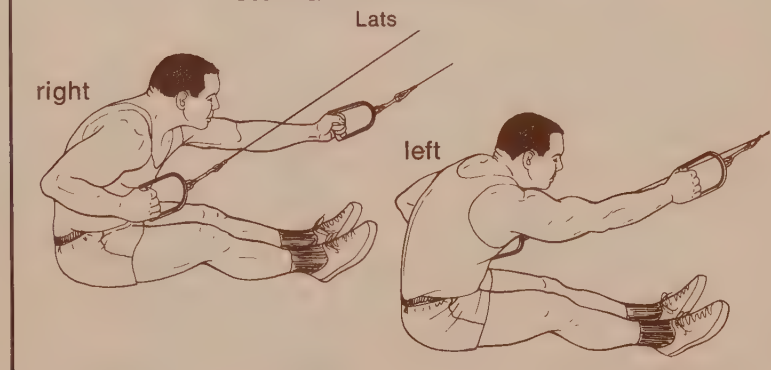
SEATED FLOOR ONE ARM HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats

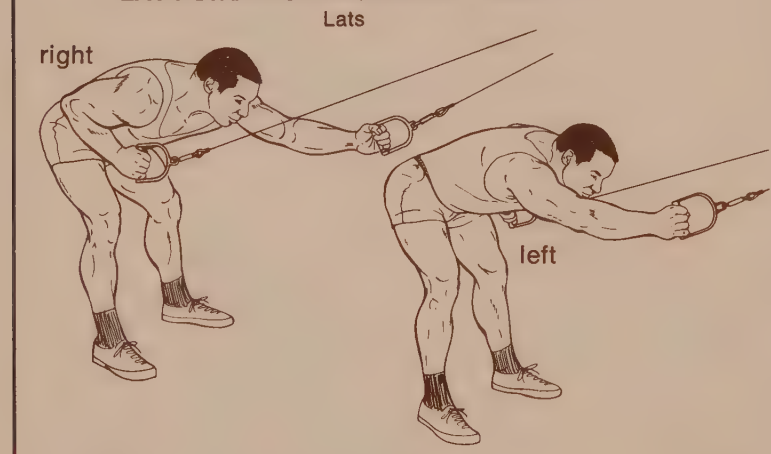
Fig. 1

Fig. 2

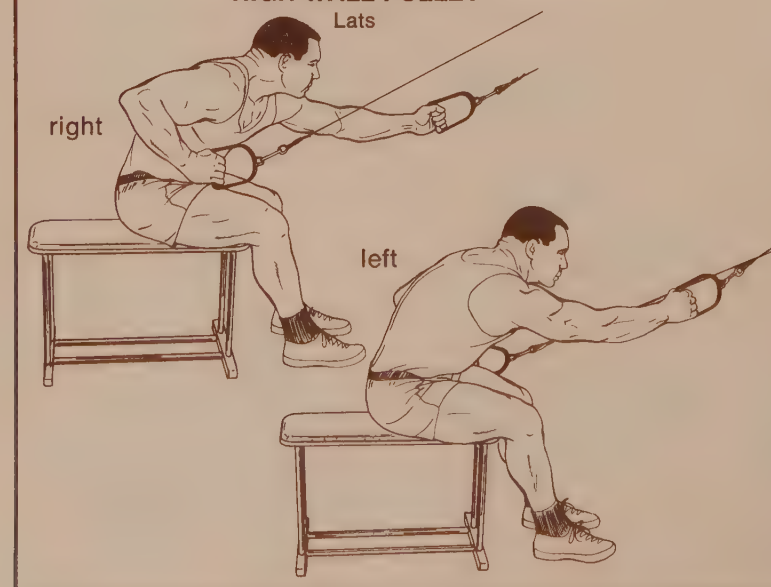
SEATED FLOOR ALTERNATED HIGH LAT PULL-IN ON HIGH WALL PULLEY



STANDING BENT OVER ALTERNATED HIGH LAT PULL-IN ON HIGH WALL PULLEY



SEATED ALTERNATED HIGH LAT PULL-IN ON HIGH WALL PULLEY



against the support and keep your head up. Inhale and pull the right handle to the side of your lower right pectoral, keeping the palm of your hand facing in. As you start to bring your right arm back to starting position, commence to pull the left handle to the side of your lower left pectoral. As your right arm is coming back to starting position, your left arm is at your left side. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Seated Floor Alternated High Lat Pull-In on High Wall Pulley

Sit on the floor in front of a wall pulley facing the machine. Sit back far enough from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up. Inhale and pull the right handle to the side of your lower right pectoral, keeping the palm of your hand facing in. As you start to bring your right arm back to starting position, commence to pull the left handle to the side of your lower left pectoral. As your right arm is coming back to starting position, your left arm is at your left side. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Standing Bent Over Alternated High Lat Pull-In on High Wall Pulley

Stand in front of a wall pulley facing the machine. Stand back far enough to enable your arms to support both weight stacks as you bend forward at the waist slightly, but keep your back straight and head up as you inhale and pull the right handle to the side of your lower right pectoral, keeping the palm of your hand facing in. As you start to bring your right arm back to starting position, commence to pull the left handle to the side of your lower left pectoral. As your right arm is coming back to starting position, your left arm is at your left side. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Seated Alternated High Lat Pull-In on High Wall Pulley

Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the right high pulley handle with your left hand and the left high pulley handle with your right hand, cross-

ing the cables. Inhale and pull the right handle straight in to the side of your chest. As you commence to return your right arm to starting position, begin pulling the left handle to the side of your chest. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Standing Bent Over One Arm Medium Height Lat Pull-In

Stand in front of a wall pulley with the lower pulley about waist high. Step back far enough away from the pulley to enable your right arm to support the weight stack as you bend at the waist and place your left hand on your lower left thigh keeping your back parallel to the floor. Inhale and pull the pulley cable to the right side of your chest even with the pectoral and exhale. Do the prescribed number of repetitions on the right side and change positions doing the same number of repetitions on the left side. Do not bend backwards and forwards at the waist while doing the exercise.

▲ Standing Bent Over One Arm High Lat Pull-In

Stand in front of a wall pulley with the pulley cable about eight feet high. Step back far enough away from the pulley to enable your right arm to support the weight stack as you bend at the waist and place your left hand on your lower left thigh keeping your back just above parallel to the floor. Inhale and pull the pulley cable down to the right side of your chest even with the pectoral and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side. Do not bend backwards and forwards at the waist while doing the exercise.

▲ Seated High Lat Pull-In on High Wall Pulley

Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the right high pulley handle with your left hand and the left high pulley handle with your right hand, crossing the cables. Inhale and pull the handles straight in to your sides. Your palms should be facing each other during the exercise. Return to starting position and exhale.

STANDING BENT OVER ONE ARM MEDIUM HEIGHT LAT PULL-IN

Lats

Fig. 1

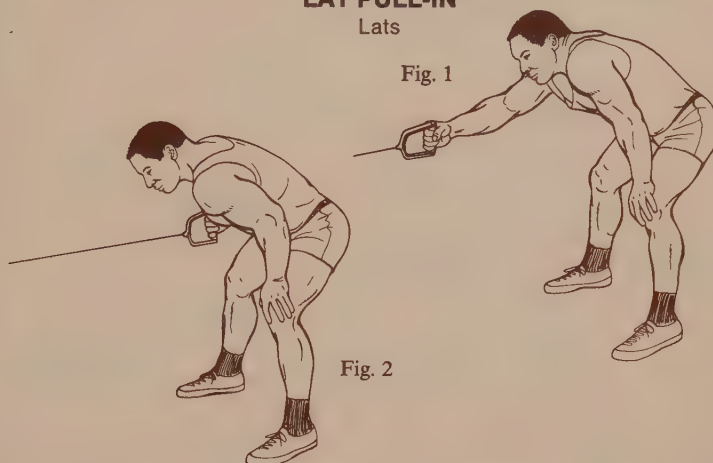


Fig. 2

STANDING BENT OVER ONE ARM HIGH LAT PULL-IN

Upper lats

Fig. 1

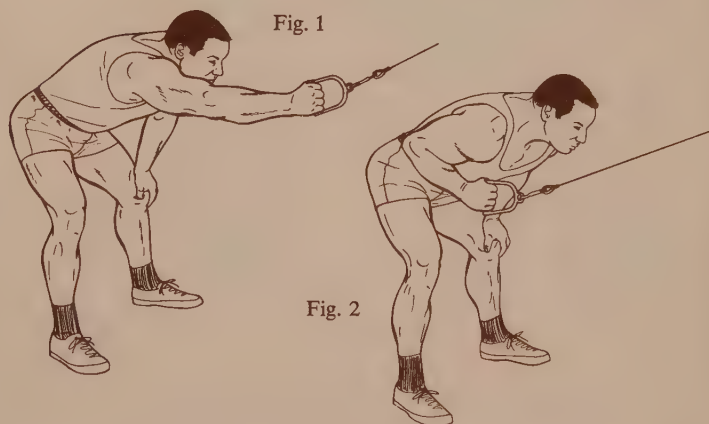


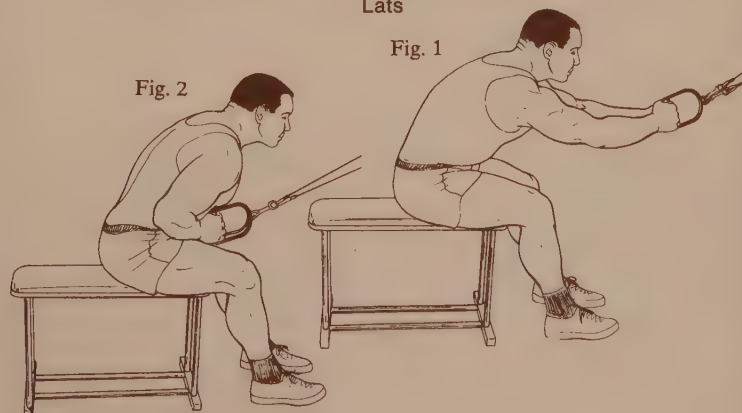
Fig. 2

SEATED HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats

Fig. 1

Fig. 2



SEATED FLOOR HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats

Fig. 1

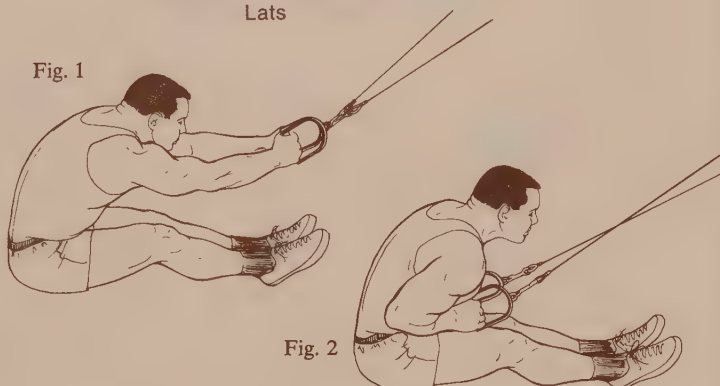


Fig. 2

▲ Seated Floor High Lat Pull-In on High Wall Pulley

Sit on the floor in front of a wall pulley facing the machine. Sit back far enough from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and your head up as you grasp the left high pulley handle with your right hand and the right high pulley handle with your left hand, crossing the cables. Inhale and pull the handles straight in to the sides of your chest keeping your arms in close to your sides. Your palms should be facing each other during the exercise. Return to starting position and exhale.

SEATED BACK SUPPORTED HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats

Fig. 1

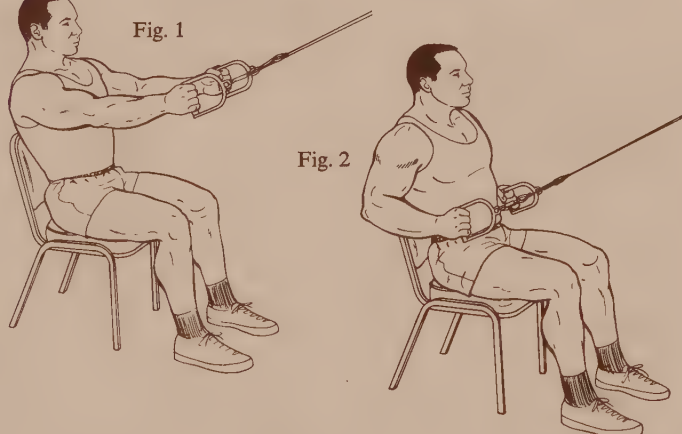


Fig. 2

▲ Seated Back Supported High Lat Pull-In on High Wall Pulley

Place a chair in front of a wall pulley. Sit on the chair facing the machine but far enough away from the machine to enable your arms to support the weight stacks as you place your back against the support, keeping your head up, as you grasp the right high pulley handle with your left hand and the left high pulley handle with your right hand, crossing the cables. Inhale and pull the handles straight in to your sides. Your palms should be facing each other during the exercise. Return to starting position and exhale.

STANDING BENT OVER HIGH LAT PULL-IN ON HIGH WALL PULLEY

Lats

Fig. 1

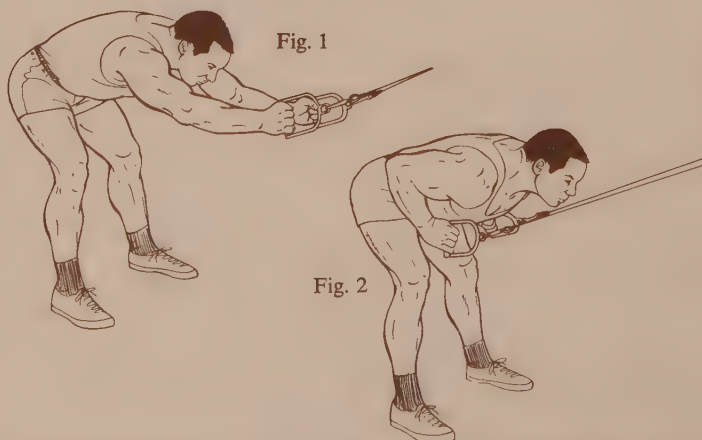


Fig. 2

▲ Standing Bent Over High Lat Pull-In on High Wall Pulley

With your feet about sixteen inches apart, stand facing a high wall pulley and grasp the top pulley cable handles with both hands, palms facing each other. Step back far enough to enable your arms to support both weight stacks as you bend at the waist keeping your back straight, head up, and arms straight, as you inhale and pull the cable handles directly to your sides just below the pectorals. Keep your elbows in close to your sides as you complete the pull. Exhale as you bring the cables back to starting position.

▲ Seated Alternated Low Lat Pull-In on Low Wall Pulley

Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away from the machine to enable your arms to support the weight stacks as you bend forward at the waist slightly, keeping your back straight and

head up as you grasp the right low pulley handle with your left hand and the left low pulley handle with your right hand, crossing the cables. Inhale and pull the handle in your right hand straight in to the side of your chest, keeping your arm in close to your side. As you commence to return your right arm to starting position, begin pulling the left handle to the side of your chest. Inhale as you pull with your right arm and exhale as you pull with your left arm.

▲ Standing Bent Over Alternated Low Lat Pull-In on Low Wall Pulley

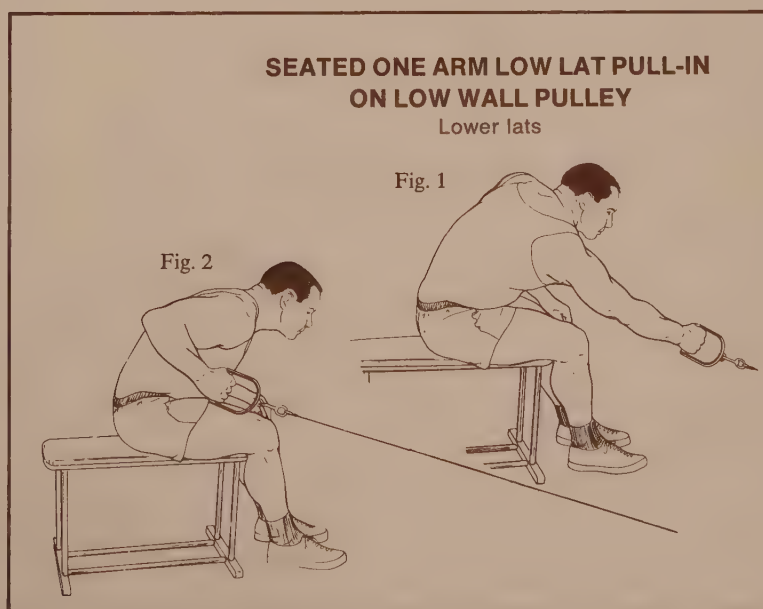
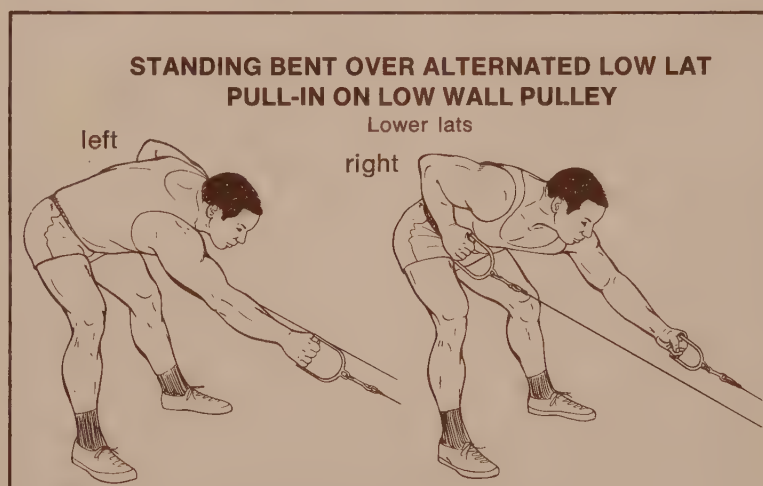
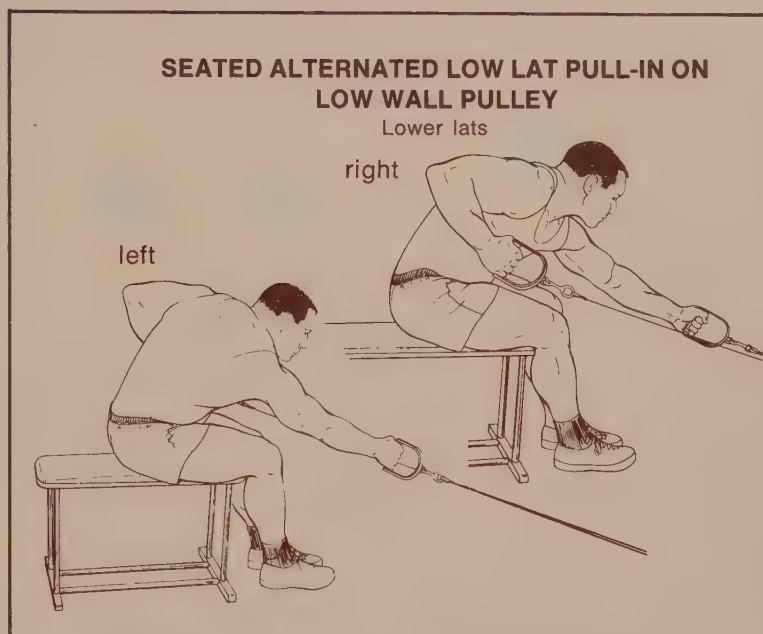
Stand in front of a wall pulley. Step back far enough from the pulley to enable your arms to support the weight stacks as you bend at the waist, keeping your back parallel to the floor as you grasp the right lower pulley handle with your left hand and the left lower pulley handle with your right hand, crossing the cables. With your arms extended in front of you, inhale and pull the pulley cable in your right hand to the side of your right chest even with the right pectoral. As you commence to return your right arm to starting position, begin pulling your left hand to the side of your left chest even with your left pectoral. As the right returns to starting position the left will be a your side. Inhale as you pull with your right arm and exhale as you pull with your left arm. A repetition to the right and left is considered one repetition.

▲ Seated One Arm Low Lat Pull-In on Low Wall Pulley

Place a bench long ways in front of a wall pulley. Sit on the bench facing the machine but far enough away from the machine to enable your arms to support the weight stack as you bend forward at the waist slightly, keeping your back straight and head up as you grasp the right low pulley handle with your right hand. Inhale and pull the handle in your right hand straight in to the side of your chest, keeping your arm in close to your side. Place your left hand on your upper thigh to help support your upper body. Exhale as you return to starting position. Do the prescribed number of repetitions on your right side and then change positions, doing the same number of repetitions on the left side.

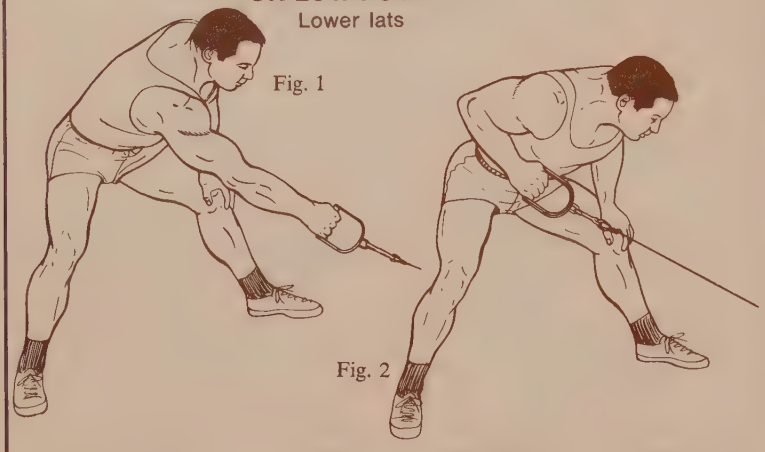
▲ Standing Bent Over One Arm Lat Pull-In on Low Pulley

Stand in front of a wall pulley. Step back



STANDING BENT OVER ONE ARM LAT PULL-IN ON LOW PULLEY

Lower lats



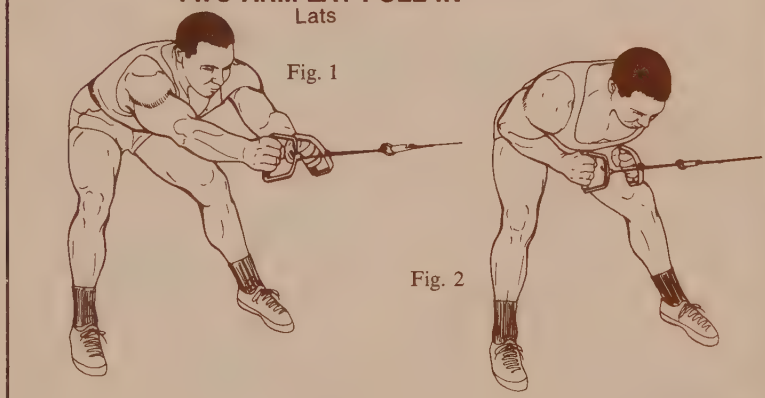
far enough from the pulley to enable your arms to support the weight stacks as you bend at the waist keeping your back parallel to the floor as you grasp the right lower pulley handle with your right hand. Place your left hand on your upper left thigh to help support your upper body. With your right arm extended in front of you, inhale and pull the pulley cable in your right hand to the side of your right chest even with the right pectoral. Return to starting position and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

▲ Standing Bent Over Medium Height Two Arm Lat Pull-In

Stand in front of a wall pulley with the lower pulley about waist high. Step back far enough from the pulley to enable your arms to support the weight stacks as you bend at the waist, keeping your back parallel to the floor. Inhale and pull the pulley cables to the side of your chest even with the pectorals. Return to starting position and exhale. Do not bend backwards and forwards at the waist while doing the exercise.

STANDING BENT OVER MEDIUM HEIGHT TWO ARM LAT PULL-IN

Lats

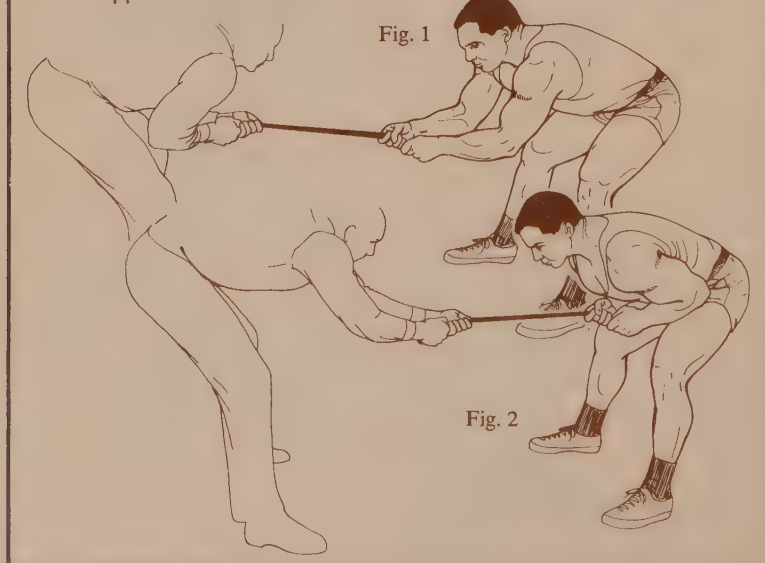


▲ Buddy Lat Stretch

Use a piece of rope about forty inches long or a bath towel for this exercise. Grasp one end of the rope while your training partner holds the other end. Both of you bend at the waist, keeping your backs straight and heads up. Your feet should be about twenty four inches apart and the knees slightly bent. With your arms outstretched and your training partner's arms bent at his sides and hands about in line with his lower chest, inhale and pull your hands to your lower chest, keeping your arms in close to your sides. Your training partner will apply resistance as you are pulling. It is then his turn to pull the rope back to his lower chest as you apply resistance for him. Be sure to concentrate on the lats, both pulling in and resisting out.

BUDDY LAT STRETCH

Upper and lower lats



▲ Seated Buddy Lat Stretch

Use a piece of rope about forty inches long or a bath towel for this exercise. Grasp one end of the rope while your training partner holds the other end. Both of you sit on separate benches spaced far enough apart to properly perform the exercise. Both of you bend forward at the waist, keeping

your backs straight, heads up and feet planted firmly on the floor. With your arms outstretched and your training partner's upper arms to his sides and hands about in line with his lower chest, inhale and pull your hands to your lower chest, keeping your arms in close to your sides. Your training partner will apply resistance as you are pulling. It is then his turn to pull the rope back to his lower chest as you apply resistance for him. Be sure to concentrate on the lats, both pulling in and resisting out.

▲ Close Grip Straight Arm Barbell Pullover Across Bench

Inner pectorals and upper lats

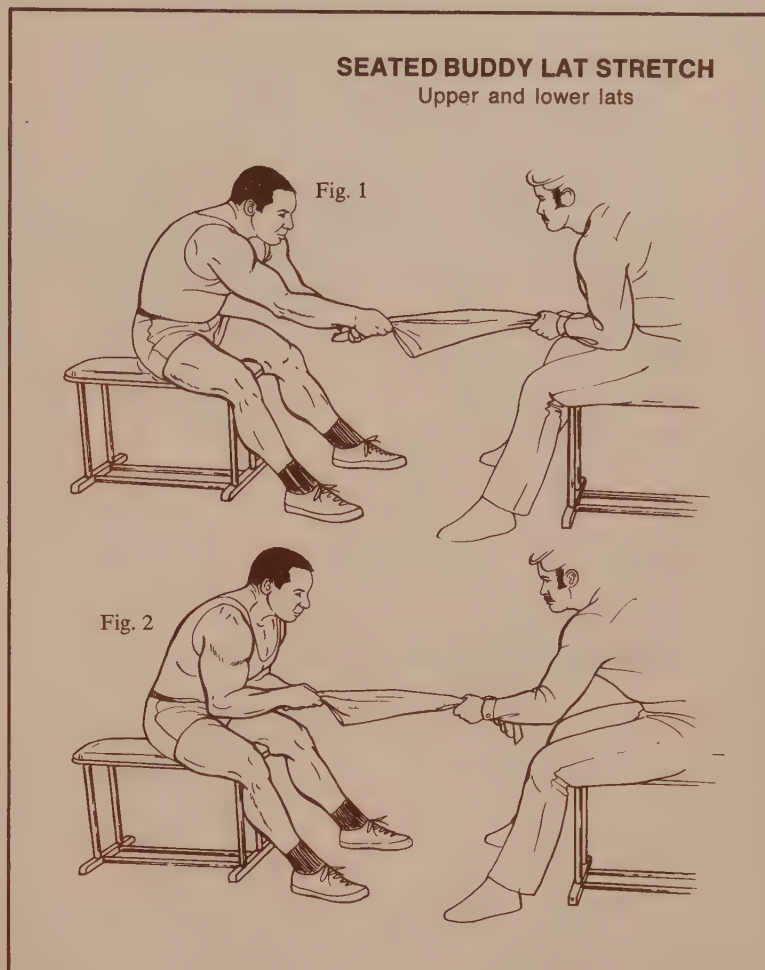
Lie supine across a bench with your upper back supporting the weight of the upper body and your head off the bench hanging in a downward position. Keep your body and legs nearly straight while trying to drop the hips downward slightly to help raise the rib cage. Holding a barbell at arm's length above the shoulders and having a hand spacing about ten inches apart, take a deep breath while lowering the barbell in a semicircle over and behind your head until it is lowered as far back as possible without bringing discomfort to the shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head in a downward position, breathe heavily and do not raise the hips up.

▲ Wide Grip Straight Arm Barbell Pullover Across Bench

Lie supine across a bench with your upper back supporting the weight of the upper body and your head off the bench hanging in a downward position. Keep your body and legs nearly straight while trying to drop the hips downward slightly to help raise the rib cage. Holding a barbell at arm's length above the shoulders and having a collar to collar grip, take a deep breath while lowering the barbell in a semicircle over and behind your head until it is lowered as far back as possible without bringing discomfort to the shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting point. Keep the head in a downward position, breathe heavily and do not raise the hips up.

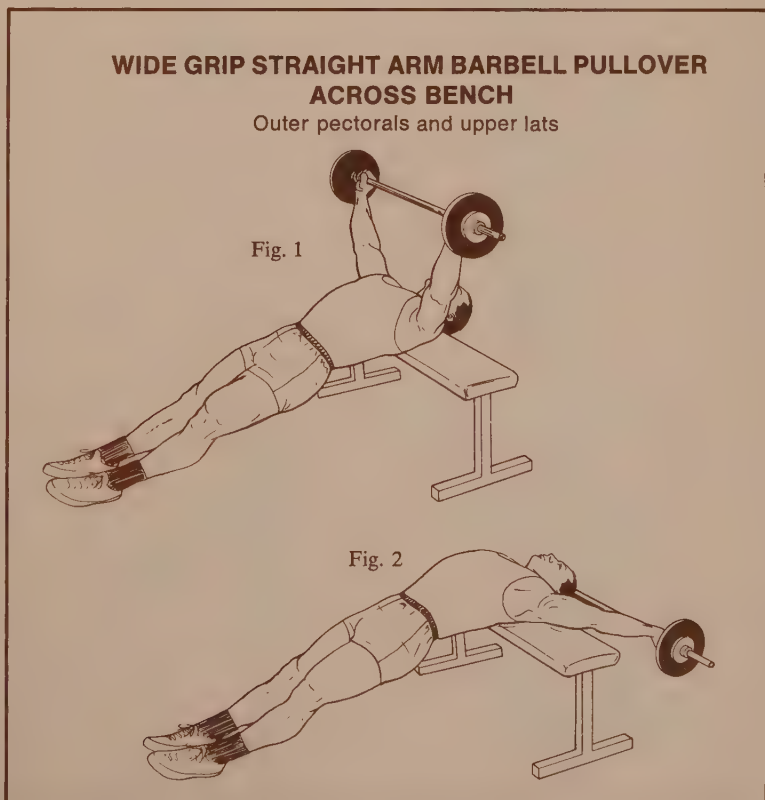
SEATED BUDDY LAT STRETCH

Upper and lower lats



WIDE GRIP STRAIGHT ARM BARBELL PULLOVER ACROSS BENCH

Outer pectorals and upper lats



MEDIUM GRIP STRAIGHT ARM BARBELL PULLOVER ACROSS BENCH

Pectorals and upper lats

Fig. 1

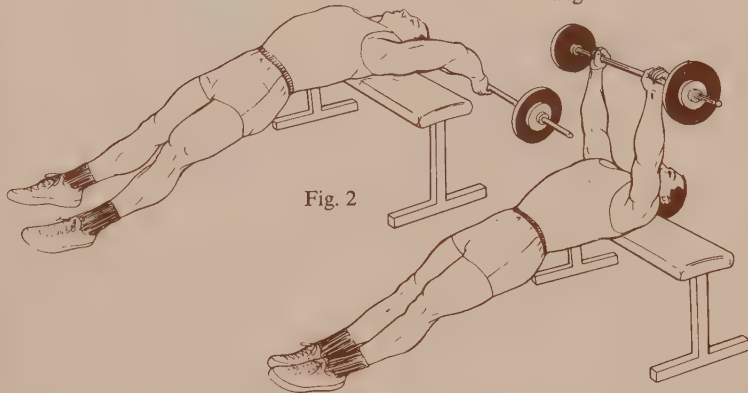


Fig. 2

▲ Medium Grip Straight Arm Barbell Pullover Across Bench

Lie supine across a bench with your upper back supporting the weight of the upper body and your head off the bench hanging in a downward position. Keep your body and legs nearly straight while trying to drop the hips downward slightly to help raise the rib cage. Holding a barbell at arm's length above the shoulders and having a hand grip that is about twenty-four inches apart, take a deep breath while lowering the barbell in a semicircle over and behind your head until it is lowered as far back as possible without bringing discomfort to the shoulder area. From this low position, return the barbell to starting position still keeping the elbows in a locked position. Exhale as you reach the starting position. Keep the head in a downward position, breathe heavily and do not raise the hips.

WIDE GRIP STRAIGHT ARM LAT PULLDOWN

Lats

Fig. 1

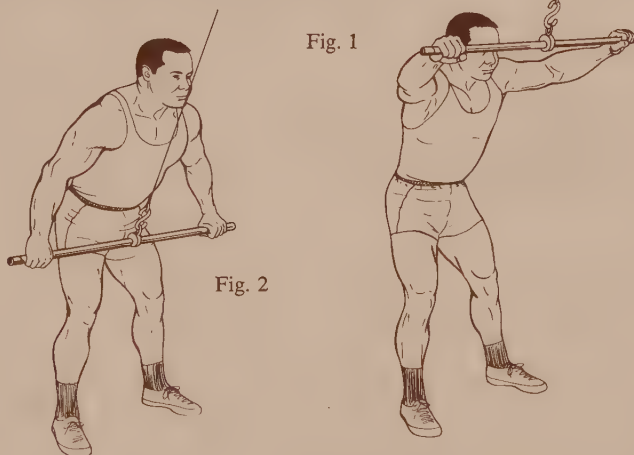


Fig. 2

▲ Wide Grip Straight Arm Lat Pulldown

Place your hands on a lat machine bar about thirty-six inches apart. Step back away from the lat machine until you are supporting the weight stack with your arms while they are extended in front of you about to the height of your head. Inhale and pull the bar straight down keeping your arms locked until the bar touches the top of your thighs. Return to starting position and exhale.

▲ Medium Grip Straight Arm Lat Pulldown

Lats

Place your hands on a lat machine bar about twenty-four inches apart. Step back away from the lat machine until you are supporting the weight stack with your arms while they are extended in front of you about to the height of your head. Inhale and pull the bar straight down keeping your arms locked until the bar touches the top of your thighs. Return to starting position and exhale.

CLOSE GRIP STRAIGHT ARM LAT PULLDOWN

Lats

Fig. 1

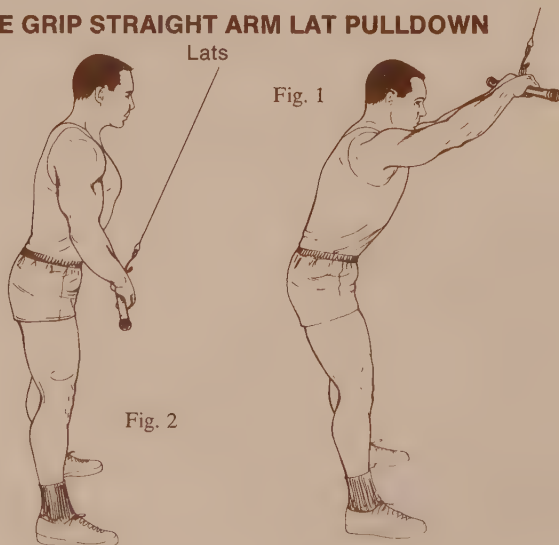


Fig. 2

▲ Close Grip Straight Arm Lat Pulldown

Place your hands on a lat machine bar about eight inches apart. Step back away from the lat machine until you are supporting the weight stack with your arms while they are extended in front of you about to the height of your head. Inhale and pull the bar straight down keeping your arms locked until the bar touches the top of your

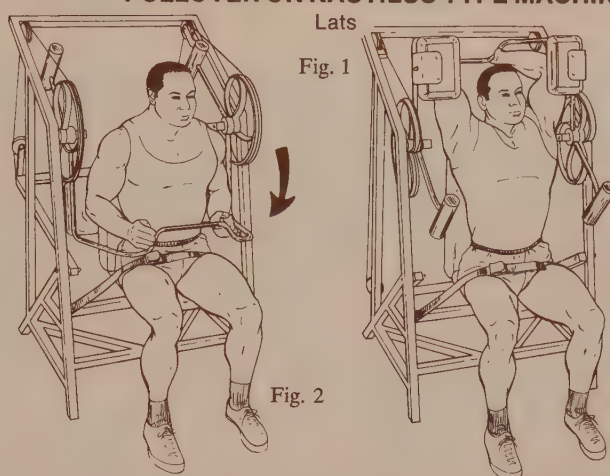
thighs. Return to starting position and exhale.

▲ Pullover on Nautilus Type Machine

Sit on the seat of a Nautilus type pullover machine. You may have to strap yourself into the machine if a belt is required. Place your elbows on the pads located just behind your head. Either grasp your left wrist with your right hand or place your hands on a bar that is provided further behind your head. Keeping all the pressure on your elbows, inhale and pull down with your back muscles until your arms are at your sides. Return to starting position and exhale.

PULLOVER ON NAUTILUS TYPE MACHINE

Lats

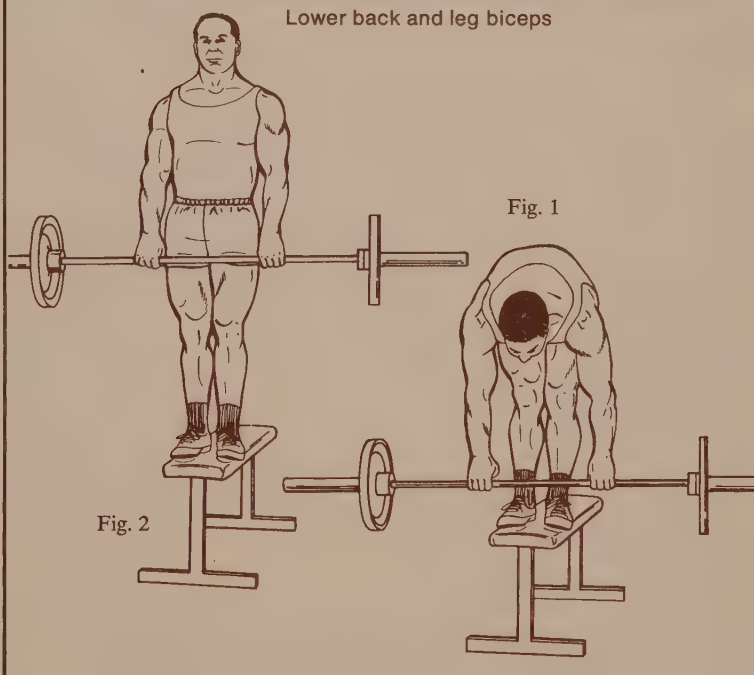


■ Stiff Legged Barbell Dead Lift Off Bench

After placing a barbell very close to the end of a bench, stand on the bench facing the barbell. Bend at the waist, keeping your back straight, head up, and legs straight and grasp the barbell with your hands about sixteen inches apart. Using the muscles of your lower back, inhale and stand erect so you are holding the barbell at arm's length at the top position. Lower the barbell back to the bench and exhale. If you are flexible enough to step closer to the end of the bench to allow the barbell to go below the bench as you are lowering it, this would be considered proper as well.

STIFF LEGGED BARBELL DEAD LIFT OFF BENCH

Lower back and leg biceps



■ Stiff Legged Dumbbell Dead Lift Off Bench

Lower back and leg biceps

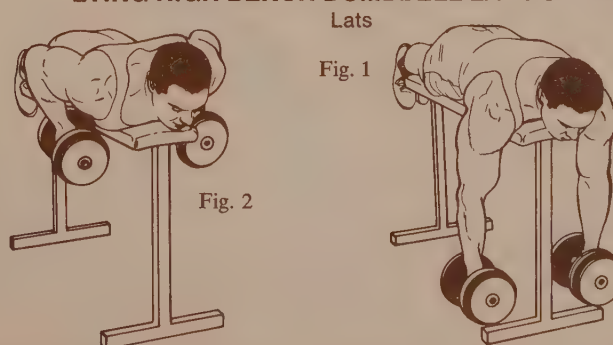
Stand on a bench with a dumbbell in each hand. Inhale and bend at the waist, keeping your back straight, your head up, and your legs straight until you lower the dumbbells to the sides of your ankles, or lower. Stand erect with the the dumbbells at arm's length and exhale.

▲ Lying High Bench Dumbbell Lat Pull-Up

Place two dumbbells on the floor on each side of a fairly tall bench. Lie face down on the bench and grasp a dumbbell with each hand keeping your palms facing each other. With the dumbbells off the floor hanging at arm's length, inhale and pull the weights straight up until they are at your sides about even with your chest. Keep your upper arms in close as you raise and lower the weights. Return to starting position and exhale. Do not let the dumbbells touch the floor once you have begun the exercise.

LYING HIGH BENCH DUMBBELL LAT PULL-UP

Lats



Introduction to Triceps Section

The triceps are the primary (agonist) muscle group to produce elbow extension. The triceps is made up of three heads located in the back of the arm. It is an antagonistic muscle to elbow flexion. In order for the elbow to flex efficiently the triceps must relax in a coordinated sequence with biceps contraction. It is impossible to achieve elbow flexion against triceps opposition if the force of the triceps exceeds that of the biceps.

The triceps extend the arm and assist the shoulder extension and movement of the arm toward the center of the body. The triceps is a two-jointed muscle. It crosses both the shoulder and the elbow, therefore, increasing its importance in such athletic activities as pole vaulting, chin-ups, opposite arm movement in discus throwing and shot putting.

Elbow extension is a weaker movement than elbow flexion. It is used in many athletic activities including overarm throwing in baseball and football, movements which extend the arm such as serving in tennis, handball, racquetball, squash and pushing movements of shot put or a basketball. Similar movements are performed in raising the body in gymnastics and wrestling and in propelling oneself in swimming the freestyle stroke. It should be noted that the triceps are at their strongest position when both the elbow and the shoulder are extended at the same time. The triceps are at their weakest when

the elbow is extended at the same time the shoulder is flexed. Weakness of the triceps results in an inability to extend the forearm against gravity, therefore, resulting in a loss of ability to throw an object or push with the elbow.

The most common injuries of either the biceps or triceps muscle group are usually related to direct trauma such as a blow or fall or the result of an overload phenomena in which the muscle cannot maintain its integrity and tears at its weakest point. This injury can be the result of a specific movement of the shoulder, arm or forearm when improper muscular development has occurred and undue stress exceeds physiological limits. The location of the injury is usually at that area where the greatest apex of stress is located. This can be noted in severe trauma such as a muscle tear at the belly of the muscle, tendon or ligament, depending on the aforementioned muscular imbalance.

Specific preventive exercises are an excellent way to warm up the triceps before weight training. It should be recognized that a strong biceps/triceps relationship can lead to an efficient throwing arm and, if maintained through proper weight training program, can decrease potential chance of injury to the shoulder, arm and elbow as it reinforces bone and joint structure.

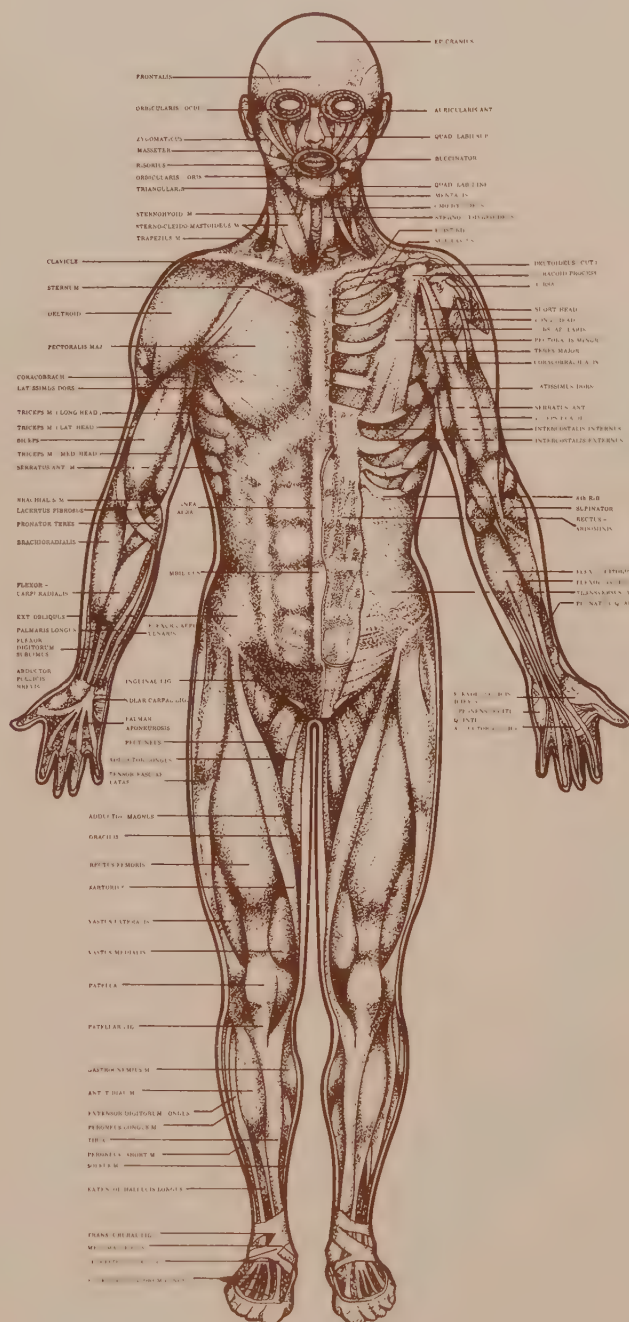
Triceps section



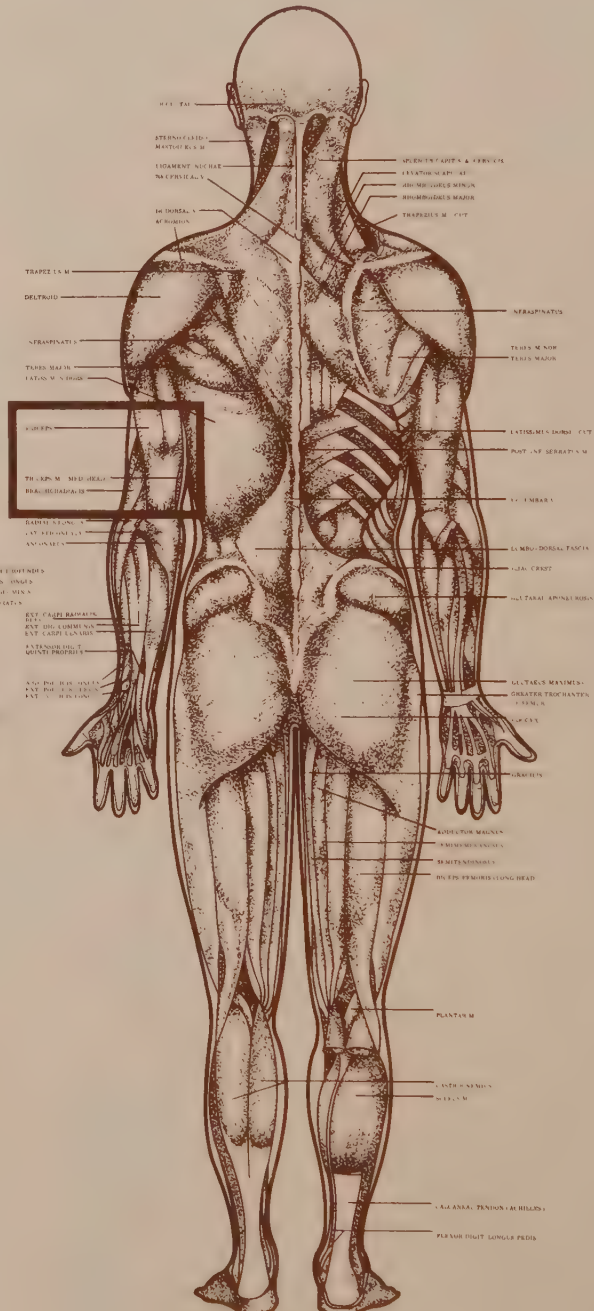
TRICEPS

Bill had the largest muscular arm in the world for several years. It measured an honest cold 20½ inches at a body weight of 218.

Muscle Anatomy



Anterior View



Posterior View

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

EQUIPMENT NEEDED FOR TRICEPS SECTION



Dip Stand



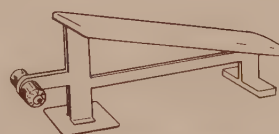
Weight Belt



Adjustable Incline Bench



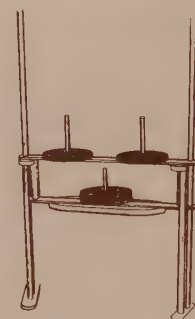
Training Partner



Decline Bench



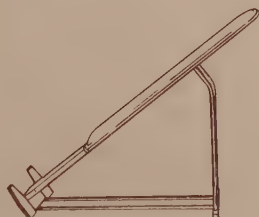
Flat Bench



Wall Type Leg Press



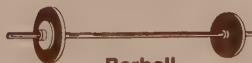
Easy Curl Bar



Incline Bench



Dumbbells



Barbell



Long Pulley Bar

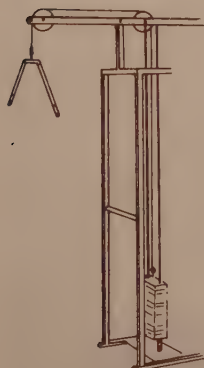


Short Pulley Bar

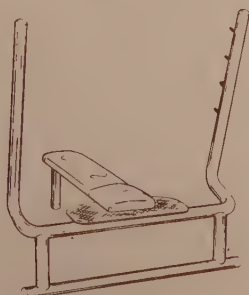


Towel

High Wall Pulley



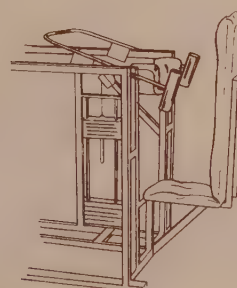
Lat Machine



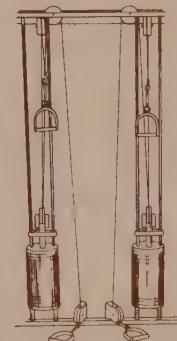
Bench Press Bench



Chair



Nautilus Type Triceps Machine



Pulley Handles

Low Wall Pulley

STANDING CLOSE GRIP BARBELL TRICEPS CURL

Triceps

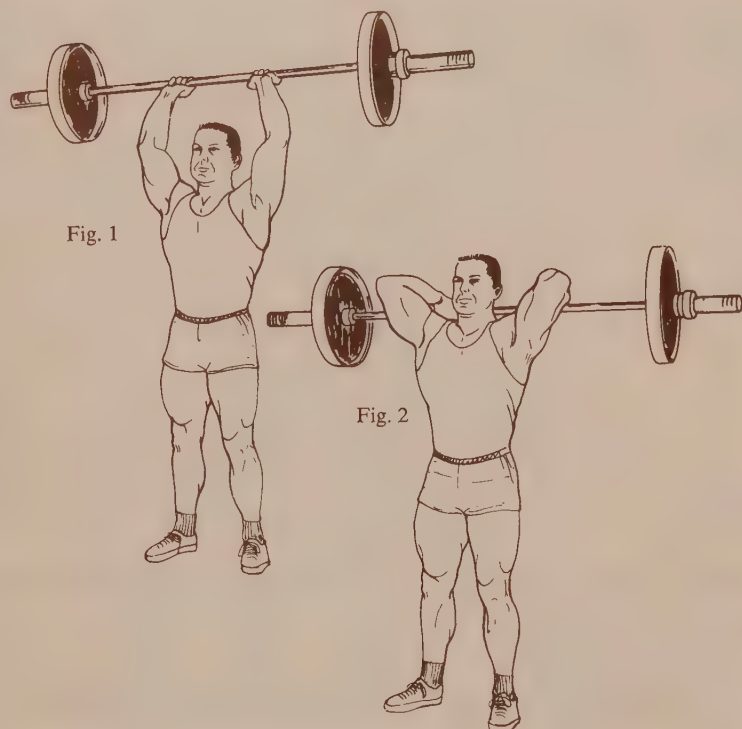


Fig. 1

Fig. 2

▲ Standing Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about six inches apart. Stand erect with your back straight, head up, hips and legs locked out. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

▲ Incline Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about six inches apart. Lie back on an incline bench keeping your head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

INCLINE CLOSE GRIP BARBELL TRICEPS CURL

Triceps

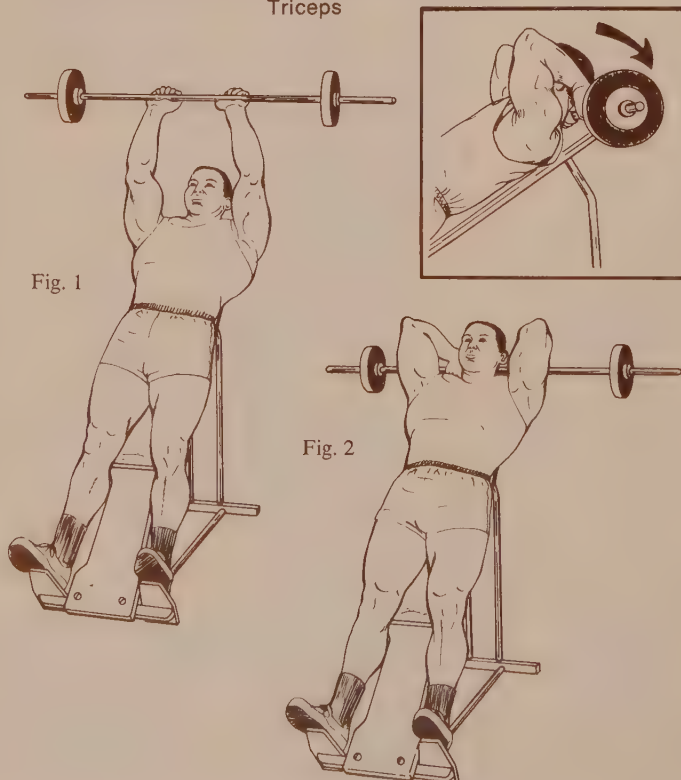


Fig. 1

Fig. 2

▲ Kneeling Close Grip Barbell Triceps Curl

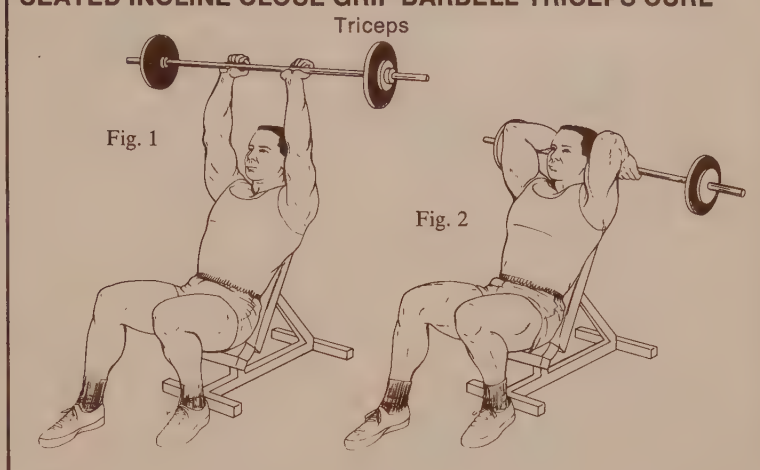
Triceps

Hold a barbell with both hands using a palms down grip about six inches apart as you kneel on the floor sitting down until your leg biceps and calves are touching. Keep your back straight and head up as you press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

▲ Seated Incline Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about six inches apart. Sit on an incline bench with your back straight, head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

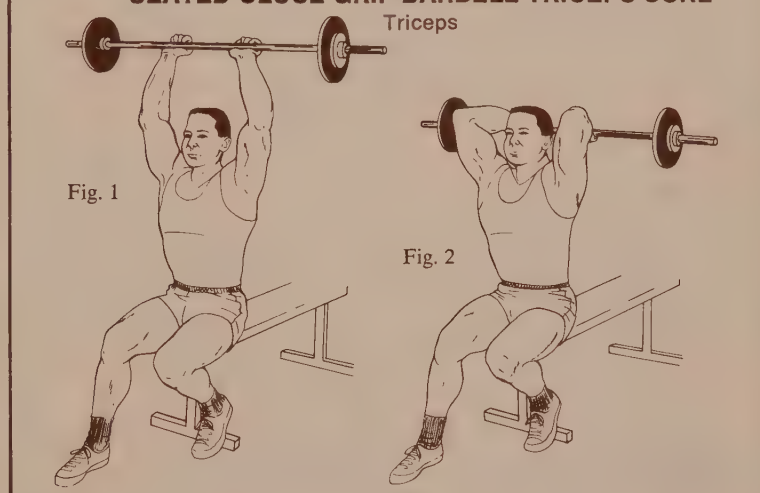
SEATED INCLINE CLOSE GRIP BARBELL TRICEPS CURL



▲ Seated Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about six inches apart. Sit at the end of a bench with your back straight, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

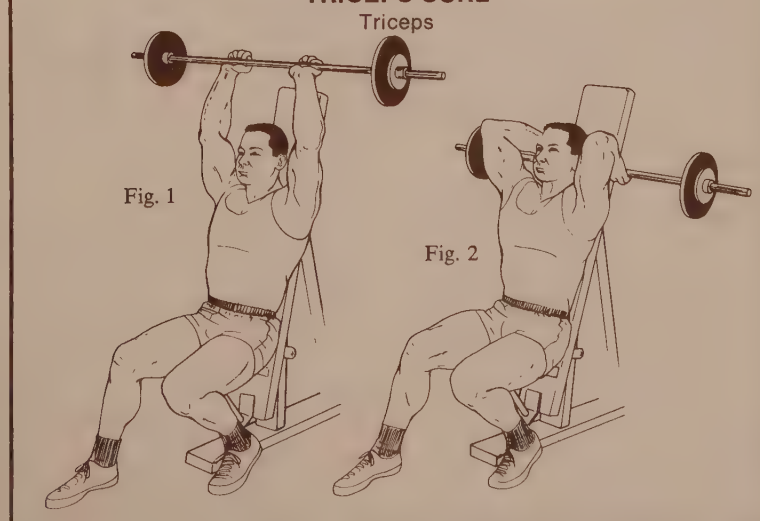
SEATED CLOSE GRIP BARBELL TRICEPS CURL



▲ Seated Back Supported Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about six inches apart. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

SEATED BACK SUPPORTED CLOSE GRIP BARBELL TRICEPS CURL



INCLINE MEDIUM GRIP BARBELL TRICEPS CURL

Triceps

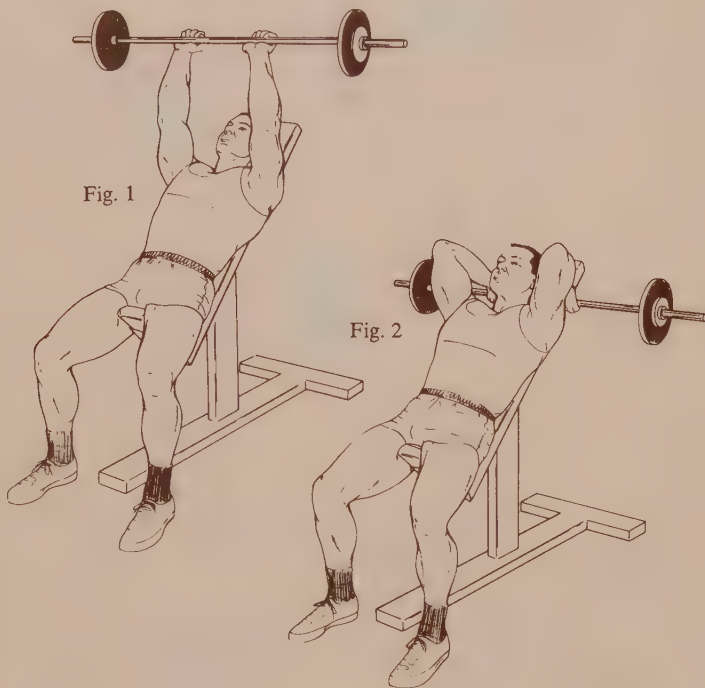


Fig. 1

Fig. 2

▲ Incline Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie back on an incline bench and press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Keep your head up and off the bench to allow the barbell to go between your head and the bench. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

▲ Standing Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Stand erect with your back straight, head up and feet about sixteen inches apart. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

STANDING MEDIUM GRIP BARBELL TRICEPS CURL

Triceps

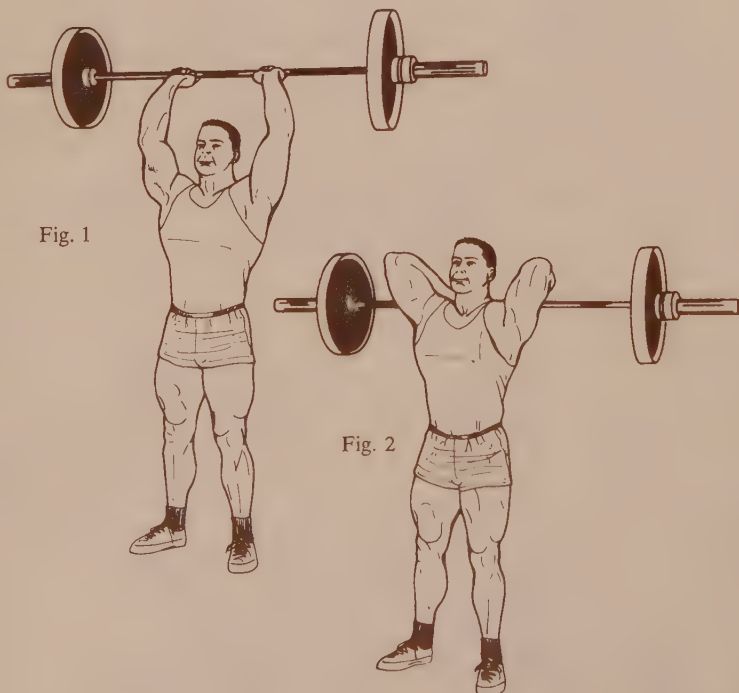


Fig. 1

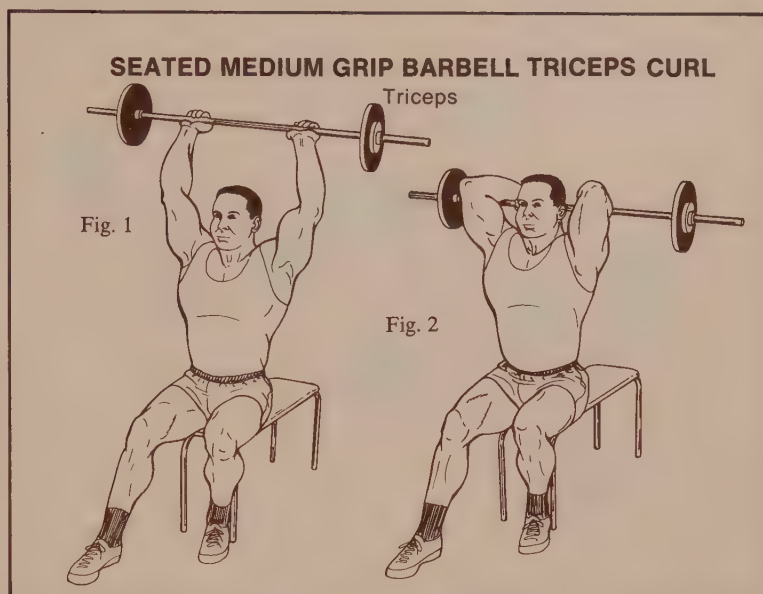
Fig. 2

▲ Seated Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

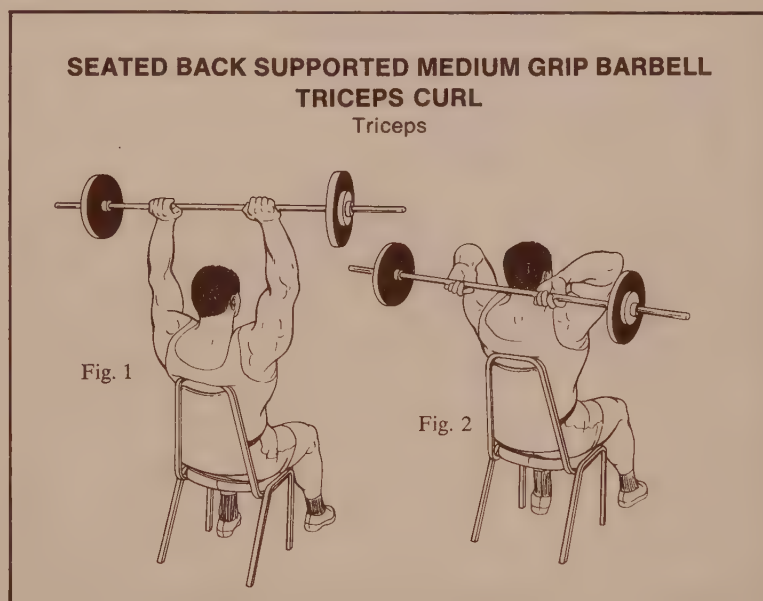
▲ Seated Back Supported Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Sit on a chair with your back against the support, your head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



▲ Kneeling Medium Grip Barbell Triceps Curl

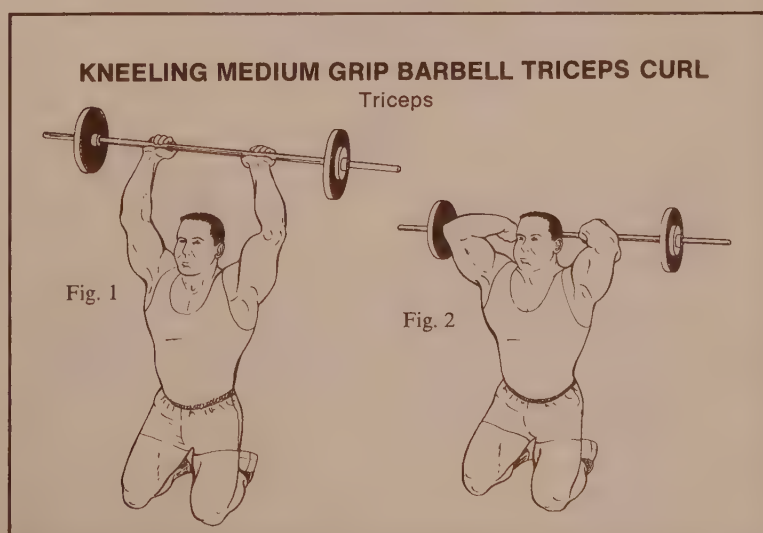
Hold a barbell with both hands using a palms down grip about fourteen inches apart. Kneel down on the floor and sit down until your leg biceps and calves touch. Keep your back straight and your head up. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



▲ Seated Incline Medium Grip Barbell Triceps Curl

Triceps

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Sit on an incline bench with your back straight, head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



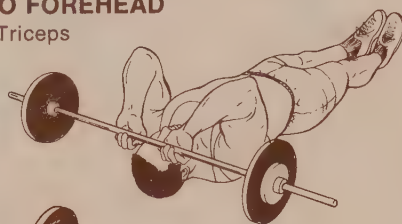
LYING FLOOR CLOSE GRIP BARBELL TRICEPS CURL TO FOREHEAD

Triceps

Fig. 1



Fig. 2



▲ Lying Floor Close Grip Barbell Triceps Curl to Forehead

Hold a barbell with both hands using a palms down grip about six inches apart. Lie on the floor and press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your forehead and your forearms and biceps should touch. Press the barbell back to starting position using the same path and exhale.

LYING SUPINE CLOSE GRIP BARBELL TRICEPS CURL TO FOREHEAD

Triceps

Fig. 1

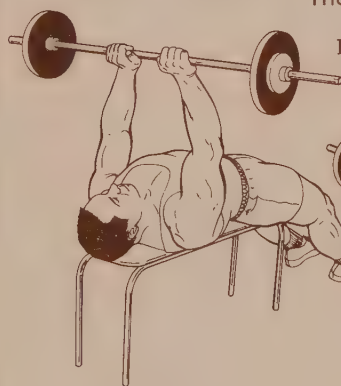
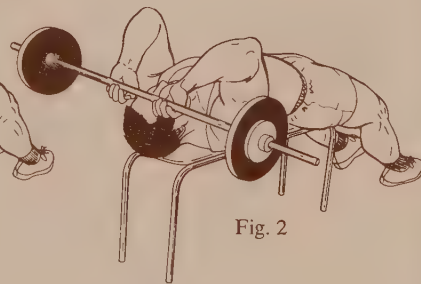


Fig. 2



▲ Lying Supine Close Grip Barbell Triceps Curl to Forehead

Hold a barbell with both hands using a palms down grip about six inches apart. Lie supine on a flat bench with your head on the bench. Press the barbell to arm's length, keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your forehead and your forearms and biceps should touch. Press the barbell back to starting position using the same path and exhale.

LYING DECLINE CLOSE GRIP BARBELL TRICEPS CURL TO FOREHEAD

Triceps

Fig. 1

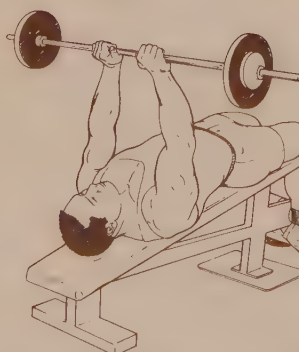
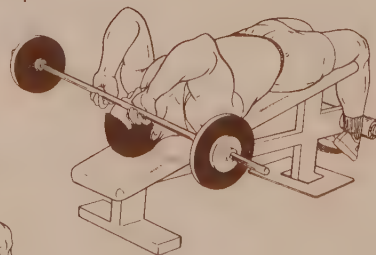


Fig. 2



▲ Lying Decline Close Grip Barbell Triceps Curl to Forehead

Hold a barbell with both hands using a palms down grip about six inches apart. Lie back on a decline bench with your head on the bench and your chin pointing upward. Press the barbell to arm's length, keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your forehead and your forearms and biceps should touch. Press the barbell back to starting position using the same path and exhale.

▲ Lying Floor Medium Grip Barbell Triceps Curl to Forehead

Triceps

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie on the floor with your head down. Press the barbell to arm's length, keeping it in line with your shoulders. Inhale and

lower the barbell straight down in a semi-circular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your forehead and your forearms and biceps should touch. Press the barbell back to starting position, using the same path, and exhale.

▲ Lying Supine Medium Grip Barbell Triceps Curl to Forehead

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie on a flat bench keeping your head on the bench. Press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your forehead and your forearms and biceps should touch. Press the barbell back to starting position using the same path and exhale.

▲ Lying Decline Medium Grip Barbell Triceps Curl to Forehead

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie back on a decline bench with your head on the bench and your chin up. Press the barbell to arm's length, keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your forehead and your forearms and biceps should touch. Press the barbell back to starting position, using the same path, and exhale.

▲ Lying Supine Close Grip Barbell Triceps Curl to Chin

Hold a barbell with both hands using a palms down grip about six inches apart. Lie on a flat bench with your head over the end of the bench pointing downward towards the floor. Press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your

LYING SUPINE MEDIUM GRIP BARBELL TRICEPS CURL TO FOREHEAD

Triceps

Fig. 1

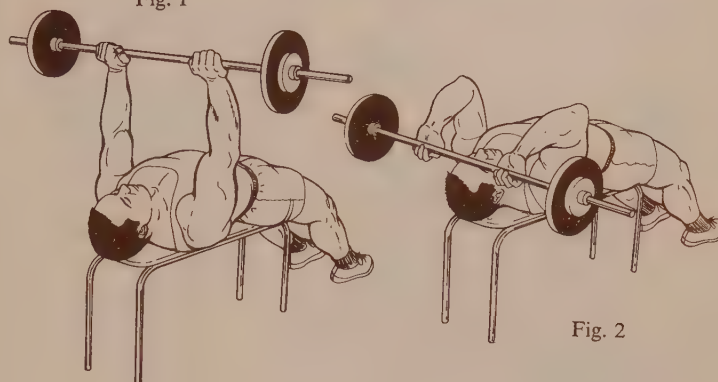


Fig. 2

LYING DECLINE MEDIUM GRIP BARBELL TRICEPS CURL TO FOREHEAD

Triceps

Fig. 1

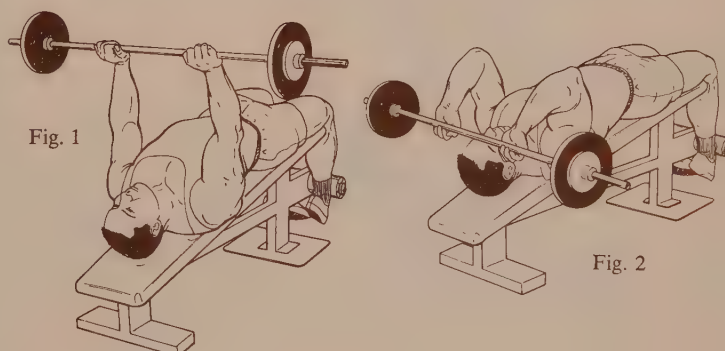


Fig. 2

LYING SUPINE CLOSE GRIP BARBELL TRICEPS CURL TO CHIN

Triceps

Fig. 1

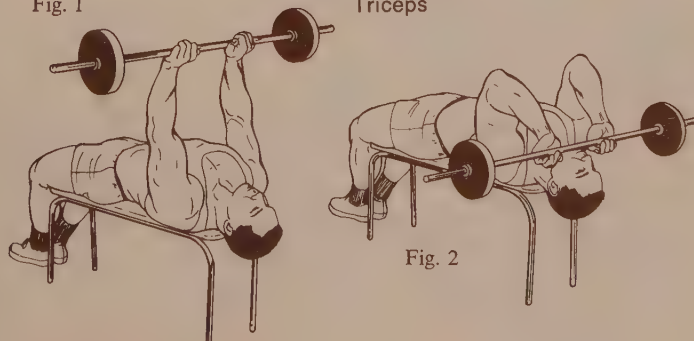


Fig. 2

LYING DECLINE CLOSE GRIP BARBELL TRICEPS CURL TO CHIN

Triceps

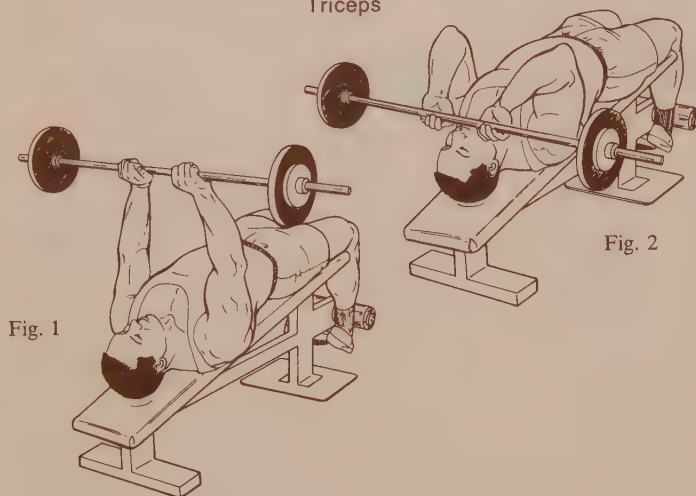


Fig. 1

Fig. 2

chin and your forearms and biceps should touch. Press the barbell back to starting position using the same path and exhale.

▲ Lying Decline Close Grip Barbell Triceps Curl to Chin

Hold a barbell with both hands using a palms down grip about six inches apart. Lie back on a decline bench with your head down and chin up. Press the barbell to arm's length, keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your chin and your forearms and biceps should touch. Press the barbell back to starting position, using the same path, and exhale.

LYING SUPINE MEDIUM GRIP BARBELL TRICEPS CURL TO CHIN

Triceps

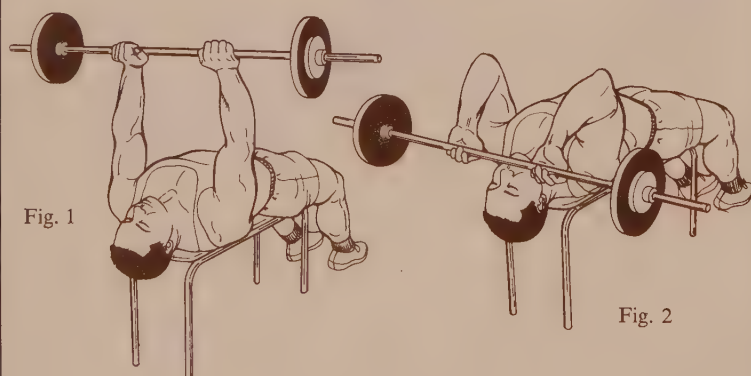


Fig. 1

Fig. 2

▲ Lying Supine Medium Grip Barbell Triceps Curl to Chin

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie on a flat bench with your head off the bench and your chin pointing upward. Press the barbell to arm's length, keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your chin and your forearms and biceps should touch. Press the barbell back to starting position, using the same path, and exhale.

LYING DECLINE MEDIUM GRIP BARBELL TRICEPS CURL TO CHIN

Triceps

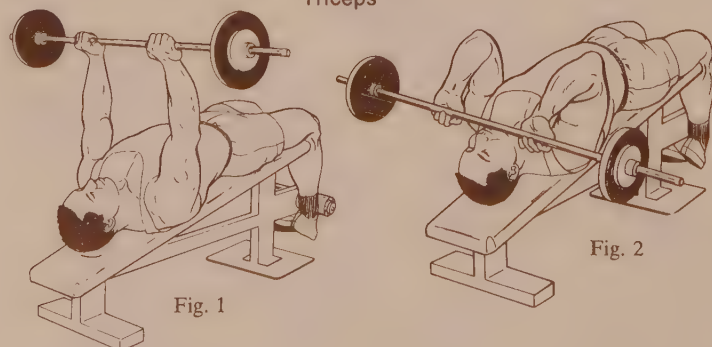


Fig. 1

Fig. 2

▲ Lying Decline Medium Grip Barbell Triceps Curl to Chin

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie on a decline bench with your head on the bench and your chin pointing upward. Press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered to your chin and your forearms and biceps should touch. Press the barbell back to starting position using the same path and exhale.

■ Incline Close Grip Barbell Triceps Curl and Press

Hold a barbell with both hands using a palms down grip about eight inches apart. Lie back on an incline bench and press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. Keep your head up and off the bench to allow the barbell to go between your head and the bench. The barbell should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

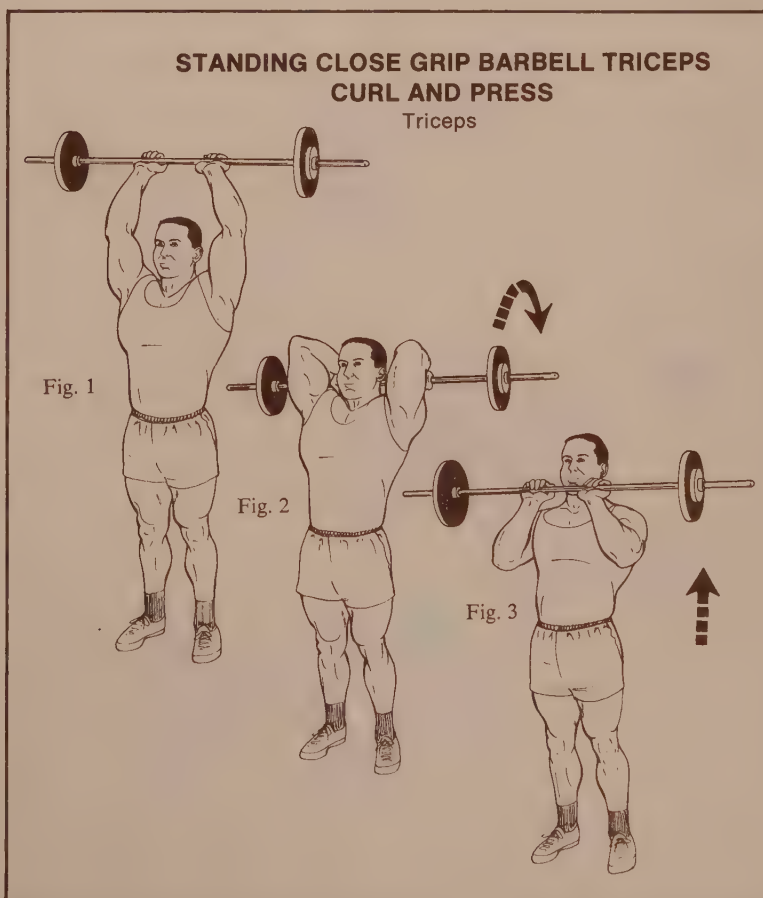
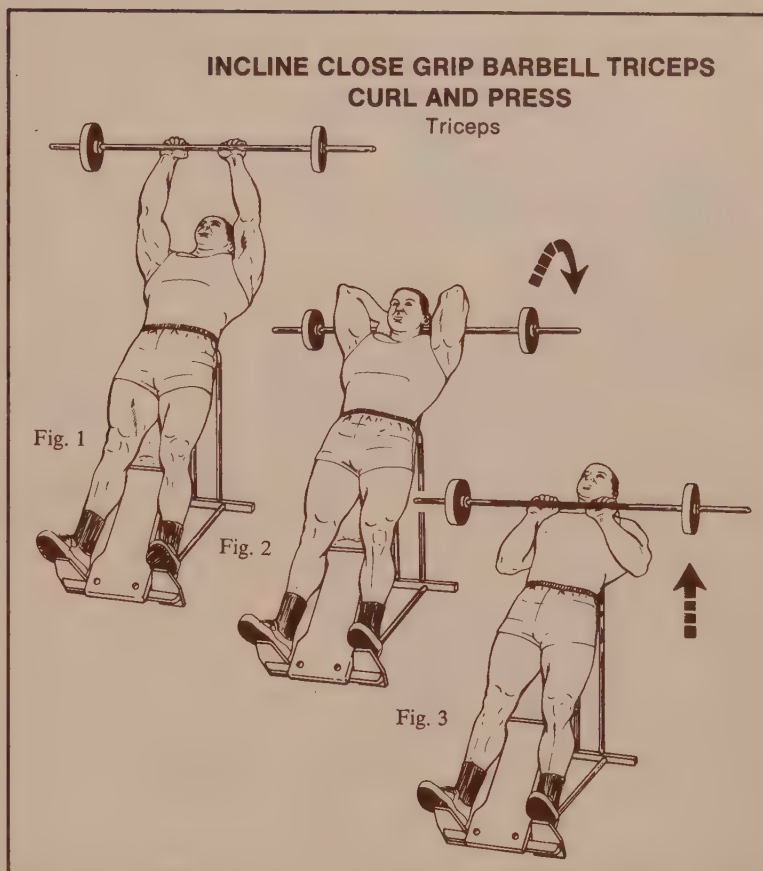
■ Seated Incline Close Grip Barbell Triceps Curl and Press

Triceps

Hold a barbell with both hands using a palms down grip about eight inches apart. Sit on an incline bench with your back straight, head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

■ Standing Close Grip Barbell Triceps Curl and Press

Hold a barbell with both hands using a palms down grip about eight inches apart. Stand erect with your back straight, head up and feet about sixteen inches apart. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.



SEATED CLOSE GRIP BARBELL TRICEPS CURL AND PRESS

Triceps



■ Seated Back Supported Close Grip Barbell Triceps Curl and Press

Triceps

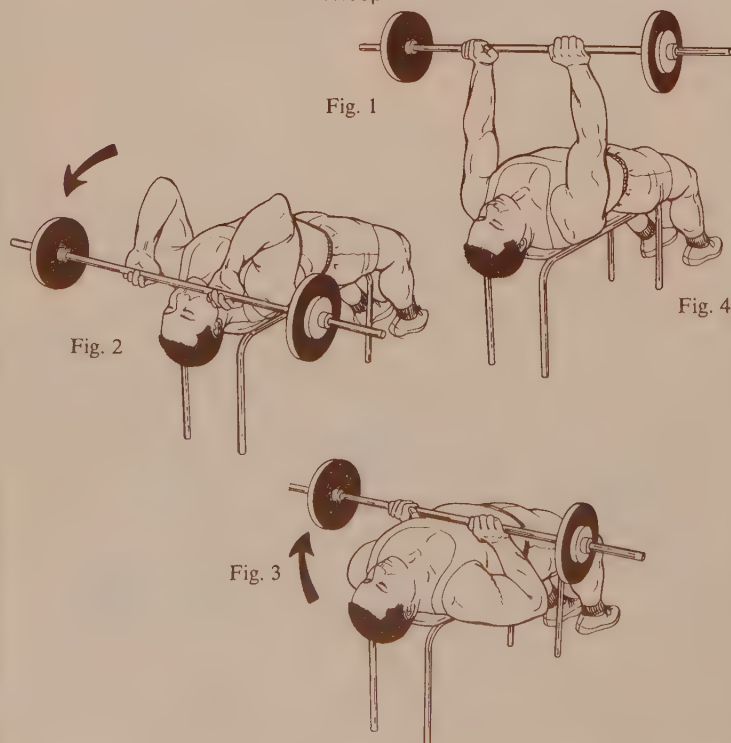
Hold a barbell with both hands using a palms down grip about eight inches apart. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.

■ Seated Close Grip Barbell Triceps Curl and Press

Hold a barbell with both hands using a palms down grip about eight inches apart. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

LYING SUPINE MEDIUM GRIP BARBELL TRICEPS CURL AND PRESS

Triceps



▲ Lying Supine Medium Grip Barbell Triceps Curl and Press

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie on a flat bench with your head on the bench keeping your chin pointing upward. Press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered to your chin and your forearms and biceps should touch. Now pull the barbell over to your chest and place it just below the nipples of your pectorals. Press the bar back to arm's length keeping your elbows in close to cause the triceps muscles to do the work and exhale.

▲ Lying Decline Medium Grip Barbell Triceps Curl and Press

Triceps

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie back on a decline bench with your head on the bench, keeping your chin pointing upward. Press the barbell to arm's length, keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered to your chin and your forearms and biceps should touch. Now pull the barbell over to your chest and place it just below the nipples of your pectorals. Press the bar back to arm's length, keeping your elbows in close to cause the triceps muscles to do the work, and exhale.

▲ Lying Decline Close Grip Barbell Triceps Curl and Press

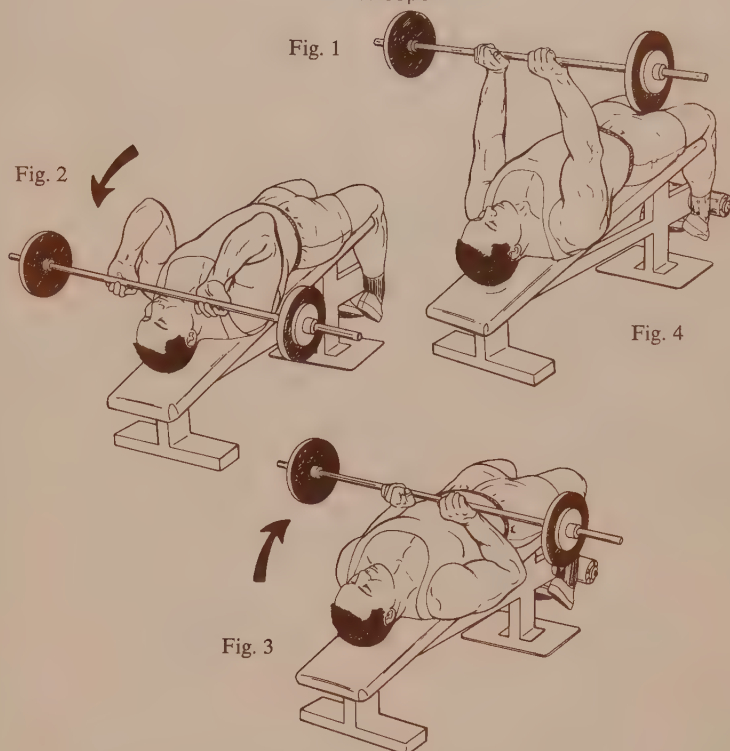
Hold a barbell with both hands using a palms down grip about eight inches apart. Lie on a decline bench with your head on the bench keeping your chin pointing upward. Press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered to your chin and your forearms and biceps should touch. Now pull the barbell over to your chest and place it just below the nipples of your pectorals. Press the bar back to arm's length keeping your elbows in close to cause the triceps muscles to do the work and exhale.

▲ Lying Supine Close Grip Barbell Triceps Curl and Press

Hold a barbell with both hands using a palms down grip about eight inches apart. Lie on a flat bench with your head off the bench and pointing down. Press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered to your chin and your forearms and biceps should touch. Now pull the barbell over your chest and place it just below the nipples of your pectorals. Press the bar back to arm's length keeping your elbows in close to cause the triceps muscles to do the work and exhale.

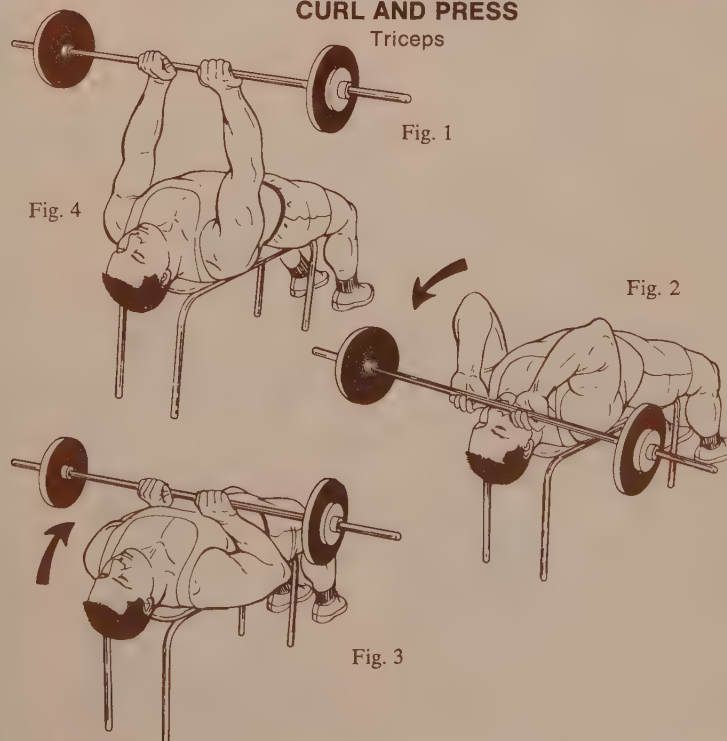
LYING DECLINE CLOSE GRIP BARBELL TRICEPS CURL AND PRESS

Triceps



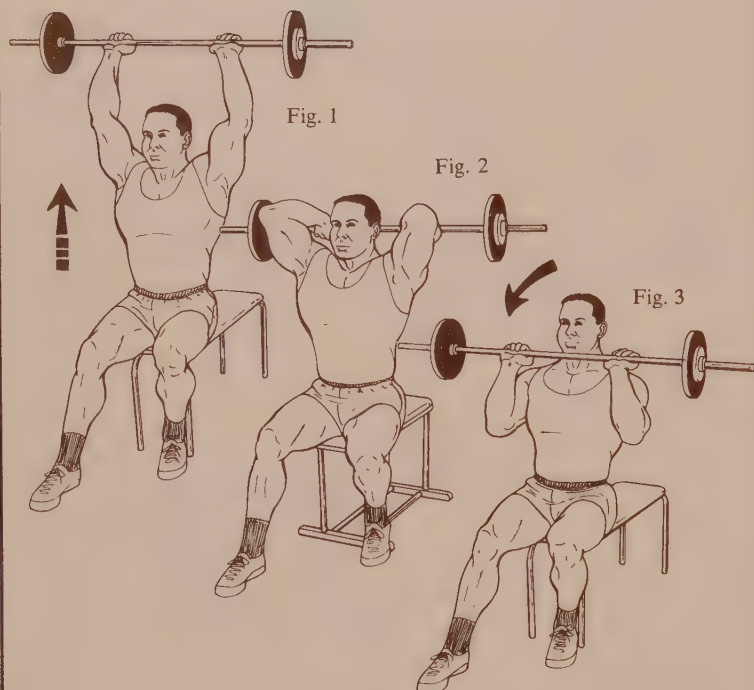
LYING SUPINE CLOSE GRIP BARBELL TRICEPS CURL AND PRESS

Triceps



SEATED MEDIUM GRIP BARBELL TRICEPS CURL AND PRESS

Triceps



■ Seated Medium Grip Barbell Triceps Curl and Press

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Sit at the end of a bench with your feet about sixteen inches apart and firmly planted on the floor. Keep your back straight and your head up. Press the bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The bar should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

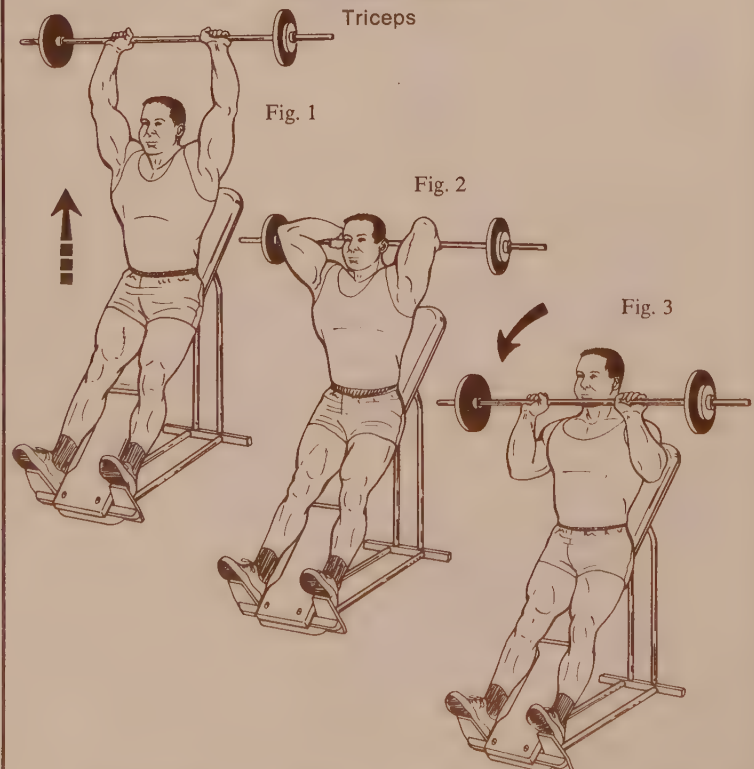
■ Seated Back Supported Medium Grip Barbell Triceps Curl and Press

Triceps

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Sit on a chair with your feet planted firmly on the floor. Keep your back against the support and your head up. Press the bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The bar should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

SEATED INCLINE MEDIUM GRIP BARBELL TRICEPS CURL AND PRESS

Triceps



■ Seated Incline Medium Grip Barbell Triceps Curl and Press

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Sit on an incline bench with your feet on the foot pads with your back straight and your head up. Press the bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The bar should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

■ Incline Medium Grip Barbell Triceps Curl and Press

Triceps

Hold a barbell with both hands using a palms down grip about fourteen inches apart. Lie back on an incline bench with your feet on the foot pads and your head up. Press the bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The bar should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

■ Standing Medium Grip Barbell Triceps Curl and Press

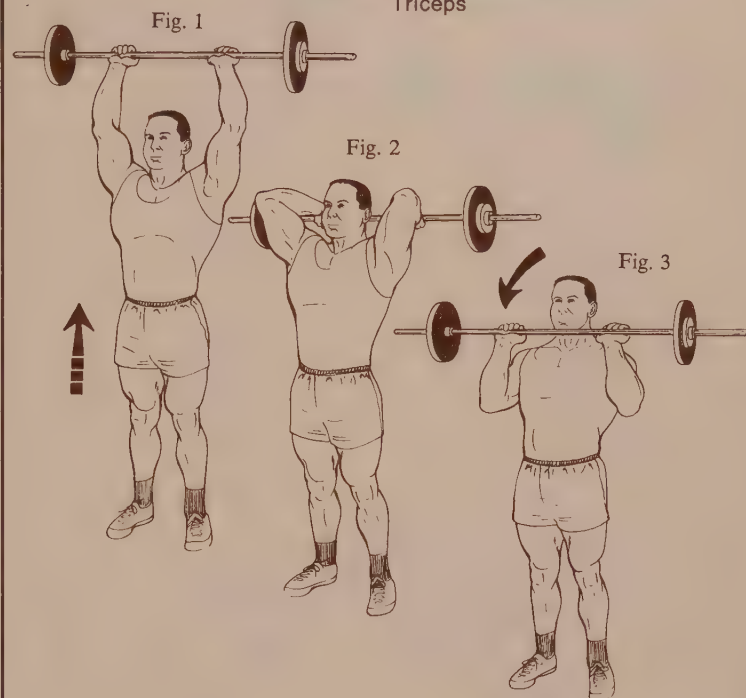
Hold a barbell with both hands using a palms down grip about fourteen inches apart. Stand erect with your feet about sixteen inches apart, your back straight and head up. Press the bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The bar should be lowered until your forearms and biceps touch. Now pull the barbell over your head using the shortest circle possible and place the bar on your upper chest with your elbows in to your sides. Immediately press the bar back to starting position and exhale.

■ Kneeling Reverse Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about six inches apart. Kneel on the floor and sit down until your leg biceps and calves touch. Keep your back straight and your head up. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

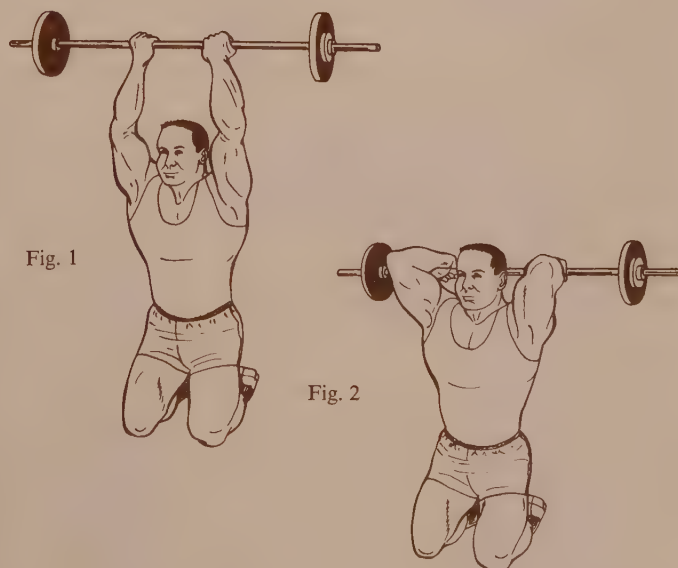
STANDING MEDIUM GRIP BARBELL TRICEPS CURL AND PRESS

Triceps



KNEELING REVERSE CLOSE GRIP BARBELL TRICEPS CURL

Triceps



STANDING REVERSE CLOSE GRIP BARBELL TRICEPS CURL

Triceps

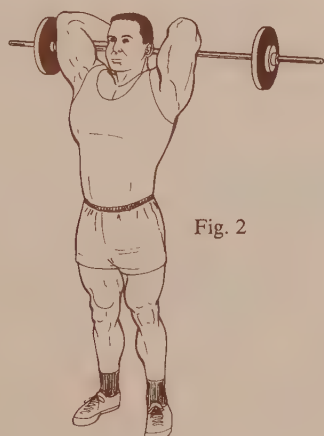


Fig. 2

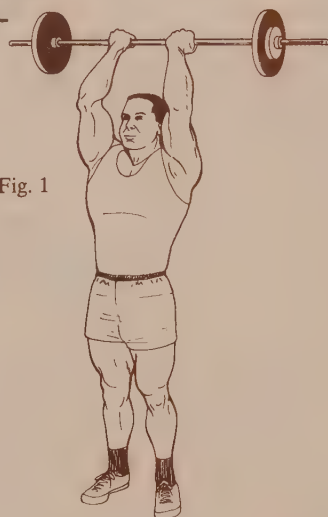


Fig. 1

INCLINE REVERSE CLOSE GRIP BARBELL TRICEP CURL

Triceps

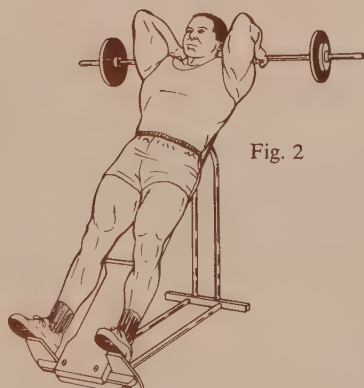


Fig. 2

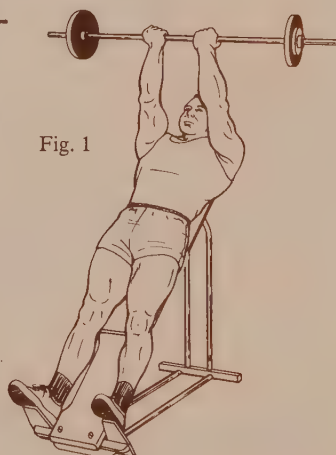


Fig. 1

SEATED INCLINE REVERSE CLOSE GRIP BARBELL TRICEPS CURL

Triceps

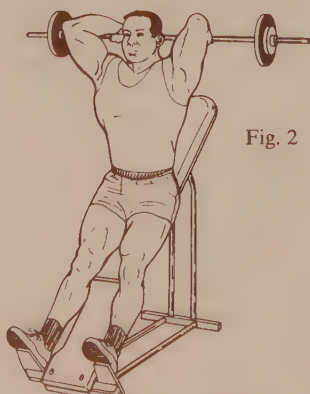


Fig. 2

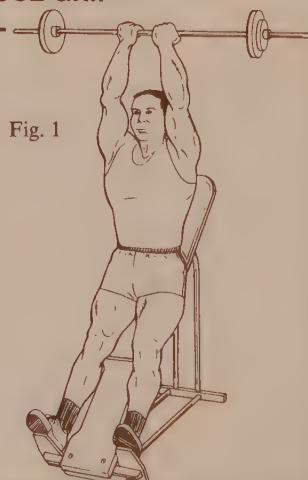


Fig. 1

■ Standing Reverse Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about six inches apart. Stand erect with your back straight, head up, hips and legs locked out. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

■ Incline Reverse Close Grip Barbell Triceps Curl

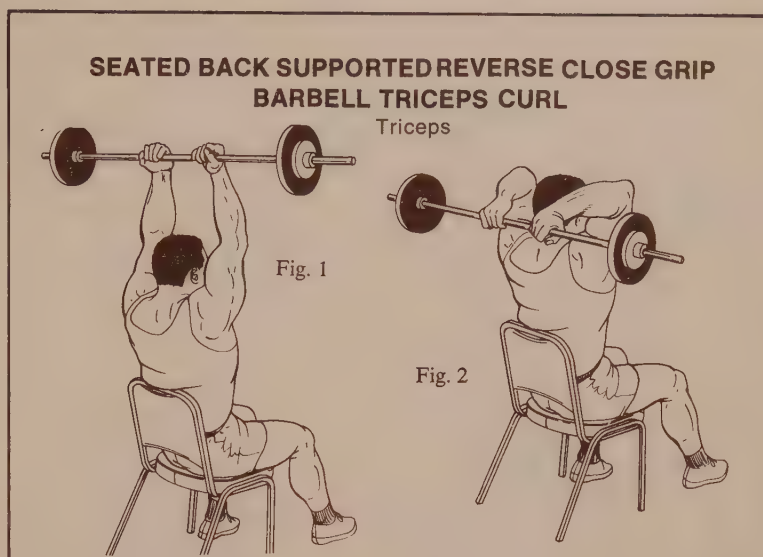
Hold a barbell with both hands using a palms up grip about six inches apart. Lie back on an incline bench and keep your head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

■ Seated Incline Reverse Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about six inches apart. Sit on an incline bench with your back straight, head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

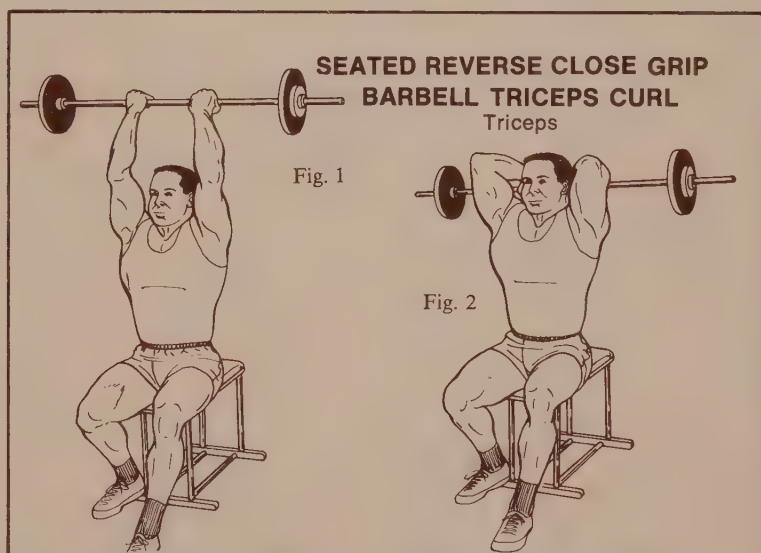
■ Seated Back Supported Reverse Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about six inches apart. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



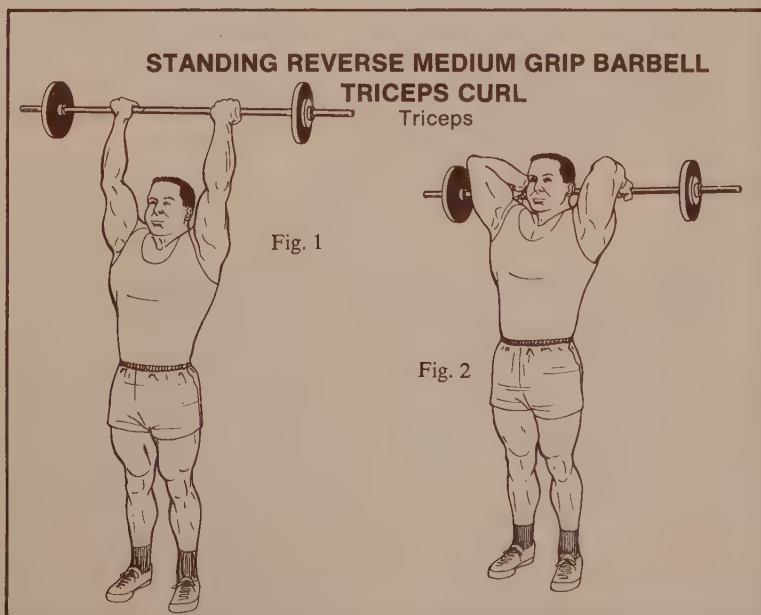
■ Seated Reverse Close Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about six inches apart. Sit on a flat bench with your back straight, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered until your forearms and biceps touch. Press the barbell back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



▲ Standing Reverse Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about fourteen inches apart. Stand erect with your hips locked out, head up and feet planted firmly on the floor about sixteen inches apart. Press the barbell overhead to arm's length. Inhale and lower the weight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered behind your head until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



SEATED REVERSE MEDIUM GRIP BARBELL TRICEPS CURL

Triceps

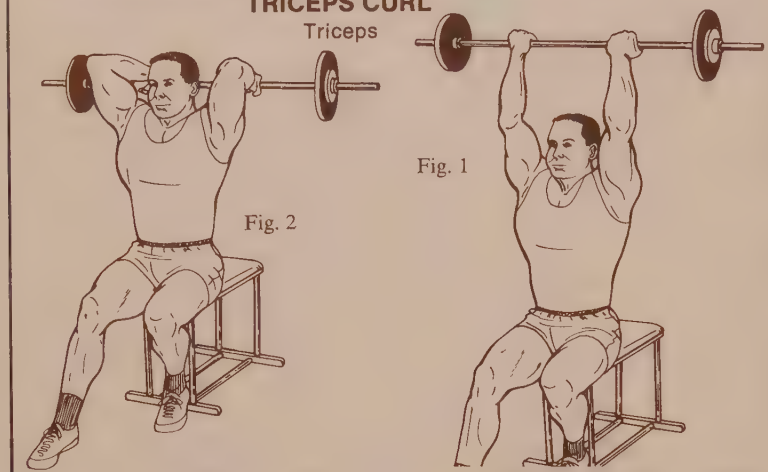


Fig. 1

Fig. 2

▲ Seated Reverse Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about fourteen inches apart. Sit on the end of a bench with your back straight, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered behind your head until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

SEATED BACK SUPPORTED REVERSE MEDIUM GRIP BARBELL TRICEPS CURL

Triceps

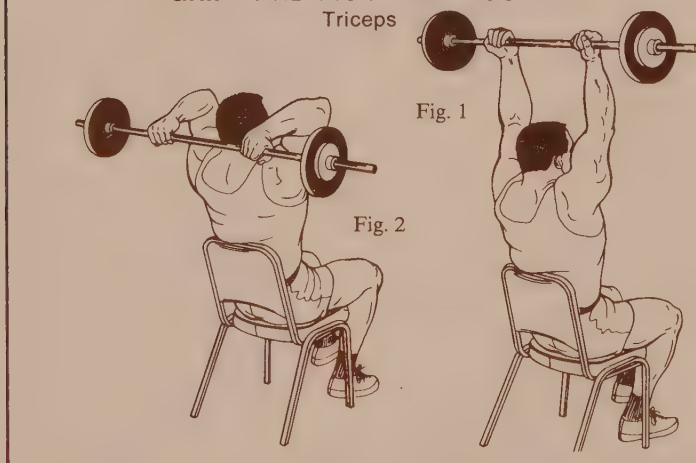


Fig. 1

Fig. 2

▲ Seated Back Supported Reverse Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about fourteen inches apart. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Press the barbell overhead to arm's length. Inhale and lower the weight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered behind your head until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

KNEELING REVERSE MEDIUM GRIP BARBELL TRICEPS CURL

Triceps

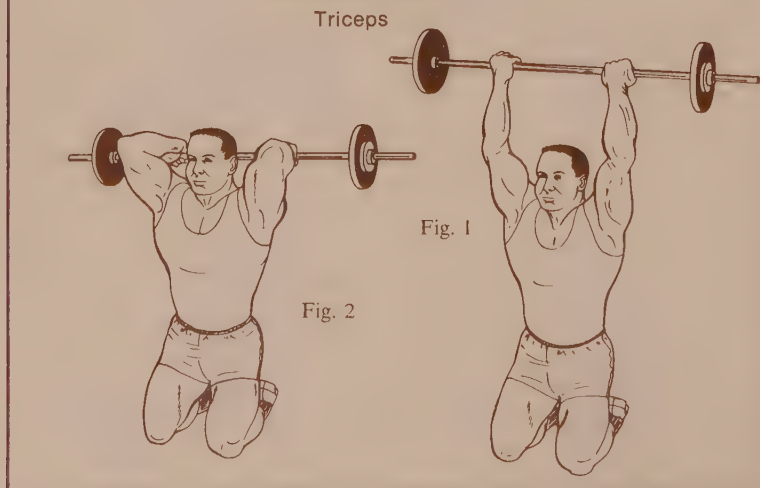


Fig. 1

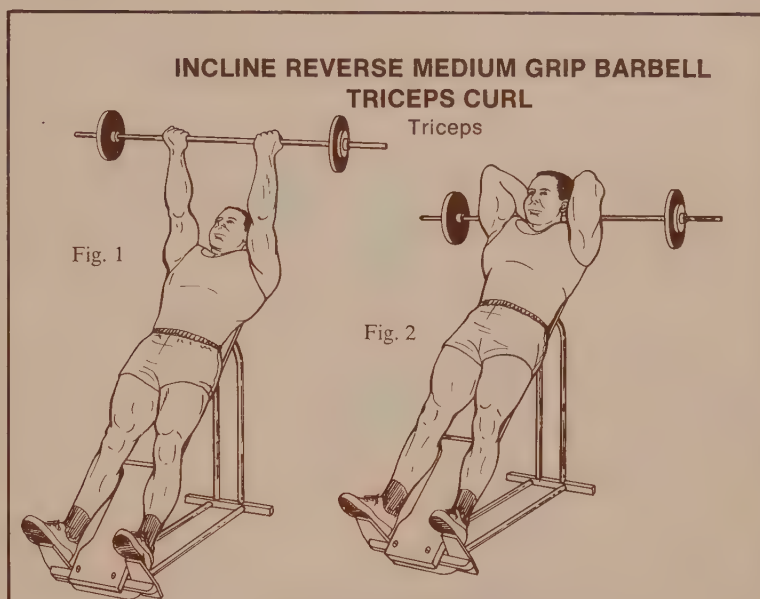
Fig. 2

▲ Kneeling Reverse Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about fourteen inches apart. Kneel down on the floor and sit down until your leg biceps and calves are touching. Keep your back straight and head up. Press the barbell overhead to arm's length. Inhale and lower the weight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered behind your head until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

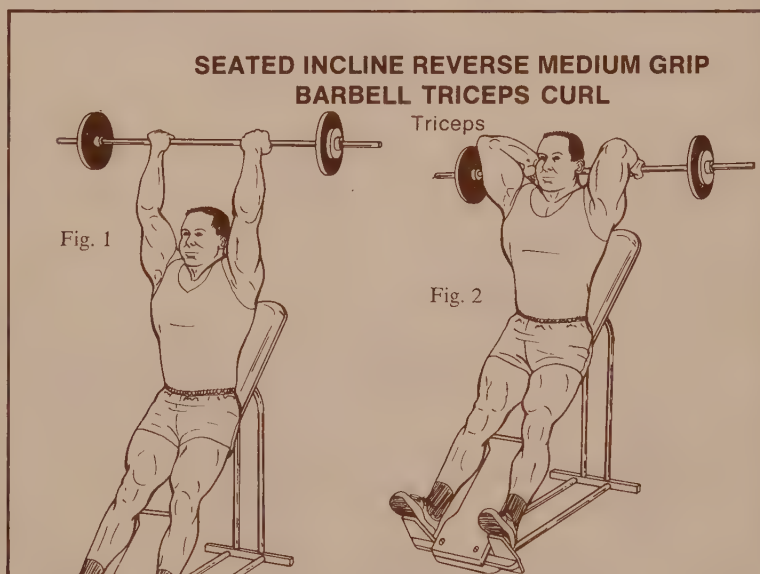
▲ Incline Reverse Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about fourteen inches apart. Lie back on an incline bench with your head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered behind your head until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



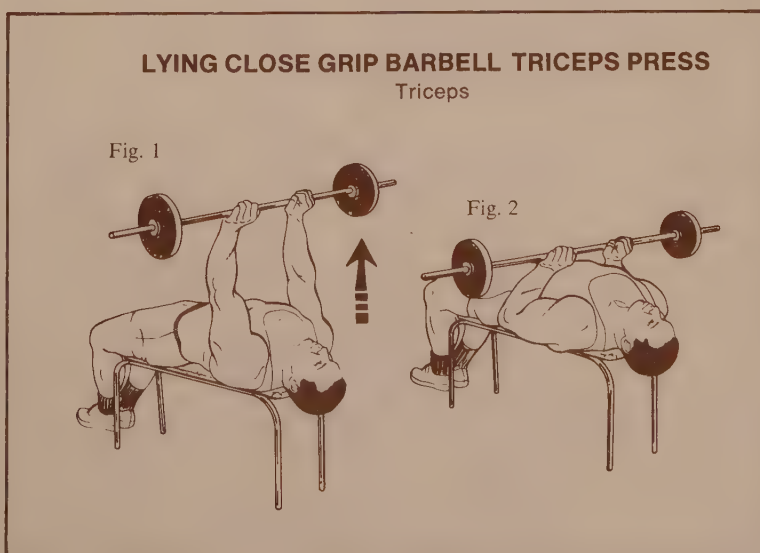
▲ Seated Incline Reverse Medium Grip Barbell Triceps Curl

Hold a barbell with both hands using a palms up grip about fourteen inches apart. Sit on an incline bench with your back straight, head up and feet on the foot pads. Press the barbell overhead to arm's length. Inhale and lower the weight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The barbell should be lowered behind your head until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



▲ Lying Close Grip Barbell Triceps Press

Hold a barbell with both hands using a palms down grip about eight inches apart. Lie on a flat bench in a supine position. Keep your head on the bench and press the barbell to arm's length, keeping it in line with your shoulders. Inhale and lower the barbell straight down to the lower part of your pectorals keeping your upper arms in close to your sides as the weight is lowered and raised. Press the bar back to starting position, concentrating on the triceps, and exhale.



▲ Lying Decline Close Grip Barbell Triceps Press

Hold a barbell with both hands using a palms down grip about eight inches apart. Lie on a decline bench with your head on

REVERSE MEDIUM GRIP TRICEPS BENCH PRESS

Triceps

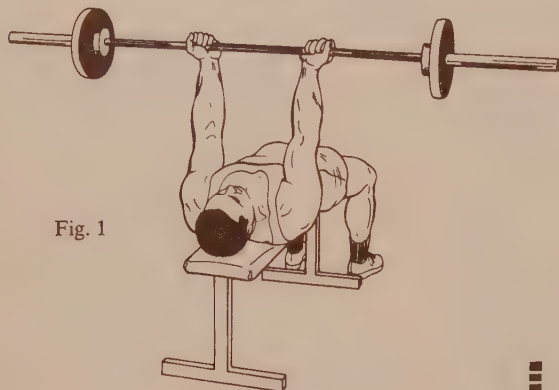


Fig. 1

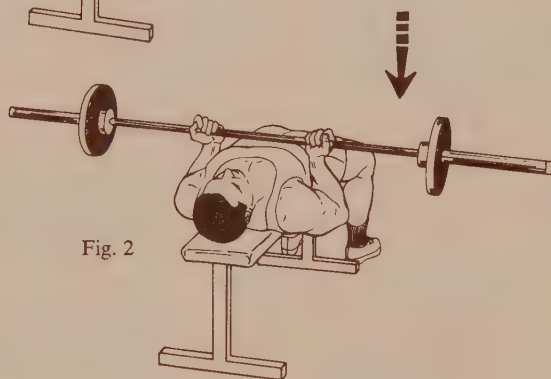


Fig. 2

the bench. Press the barbell to arm's length keeping it in line with your shoulders. Inhale and lower the barbell straight down to the lower part of your pectorals keeping your upper arms in close to your sides as the weight is lowered and raised. Press the bar back to starting position concentrating on the triceps and exhale.

■ **Reverse Medium Grip Triceps Bench Press**

Lie supine on a flat bench holding a barbell at arm's length above your shoulders using a reverse grip with your hands spaced about sixteen inches apart. Inhale and lower the barbell down to your chest until it touches about an inch below the nipples of your pectorals. Press the bar back to starting position and exhale. Be sure to keep your elbows in close to your sides as you lower and raise the weight.

■ **Reverse Close Grip Triceps Bench Press**

Triceps

Lie supine on a flat bench holding a barbell at arm's length above your shoulders using a reverse grip with your hands spaced about eight inches apart. Inhale and lower the barbell down to your chest until it touches about an inch below the nipples of your pectorals. Press the bar back to starting position and exhale. Be sure to keep your elbows in close to your sides as you lower and raise the weight.

REVERSE WIDE GRIP TRICEPS BENCH PRESS

Triceps

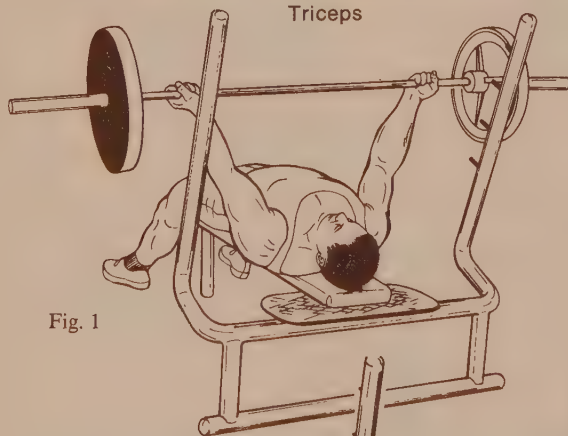


Fig. 1

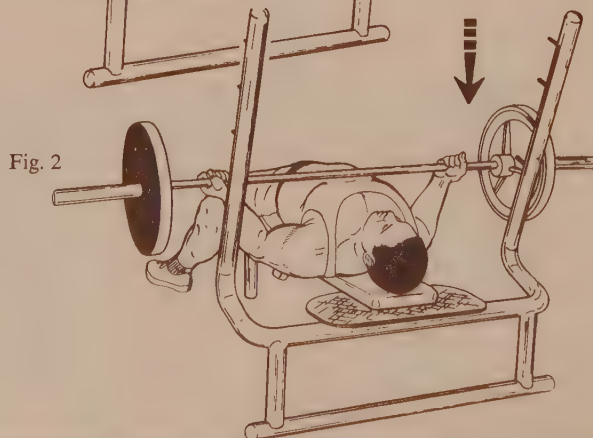


Fig. 2

■ **Reverse Wide Grip Triceps Bench Press**

Lie supine on a flat bench holding a barbell at arm's length above your shoulders using a reverse grip with your hands spaced about thirty inches apart. Inhale and lower the barbell down to your chest until it touches about an inch below the nipples of your pectorals. Press the bar back to starting position and exhale. Be sure to keep your elbows in close to your sides as you lower and raise the barbell.

■ **Lying Supine Close Grip Barbell Triceps Kick Back**

Grasp a barbell with both hands using a palms down grip about eight inches apart. Lie on a flat bench with your head close to the end. Position the barbell behind your head by keeping your upper arms close to the sides of your head and parallel with the

floor. Your lower arms should be vertical to the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel with the floor. Pause a short time to contract the triceps muscles and then slowly lower the bar back to starting position using a similar path and exhale.

■ Lying Decline Close Grip Barbell Triceps Kick Back

Triceps

Grasp a barbell with both hands using a palms down grip about eight inches apart. Lie back on a decline bench with your head as close to the end as possible. Position the barbell behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel with the floor. Pause a short time to contract the triceps muscles and then slowly lower the bar back to starting position using a similar path and exhale.

■ Lying Decline Medium Grip Barbell Triceps Kick Back

Grasp a barbell with both hands using a palms down grip about fourteen inches apart. Lie on a decline bench with your head close to the end. Position the barbell behind your head by keeping your upper arms close to the sides of your head and the bar parallel with your body. Your lower arms should be vertical with the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel with your body. Pause a short time to contract the triceps muscles and then slowly lower the bar back to starting position using a similar path and exhale.

■ Lying Supine Medium Grip Barbell Triceps Kick Back

Grasp a barbell with both hands using a palms down grip about fourteen inches apart. Lie on a flat bench with your head at the end of the bench. Position the barbell behind your head by keeping your upper arms close to the sides of your head and parallel with your body. Your lower arms should be vertical with the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel

LYING SUPINE CLOSE GRIP BARBELL TRICEPS KICK BACK

Triceps

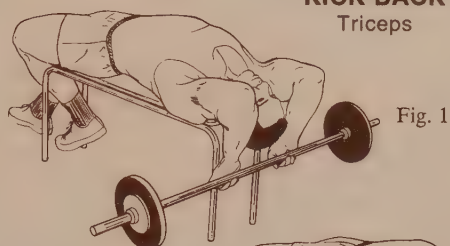


Fig. 1

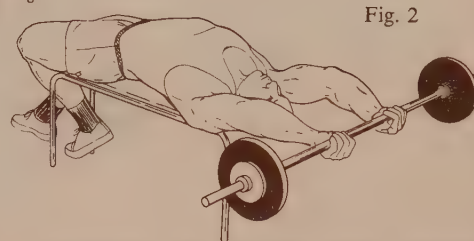


Fig. 2

LYING DECLINE MEDIUM GRIP BARBELL TRICEPS KICK BACK

Triceps

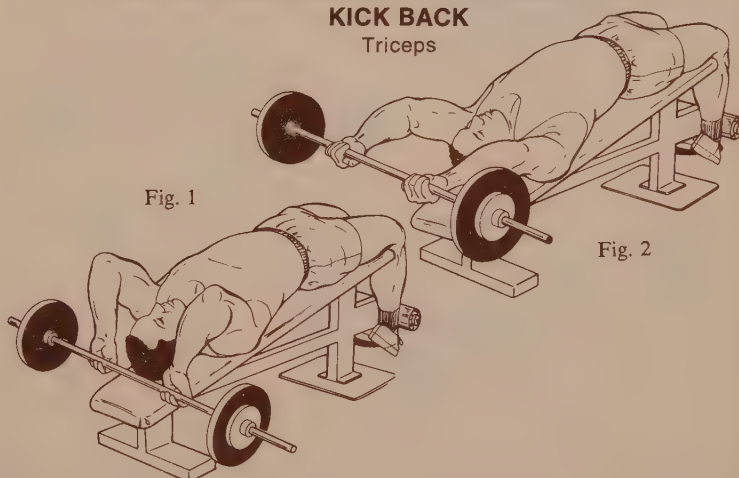


Fig. 1

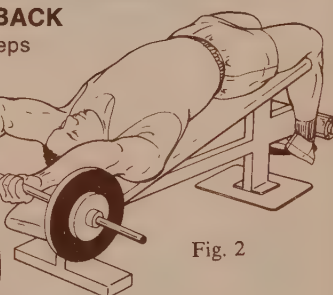


Fig. 2

LYING SUPINE MEDIUM GRIP BARBELL TRICEPS KICK BACK

Triceps

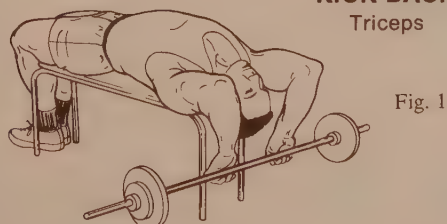


Fig. 1

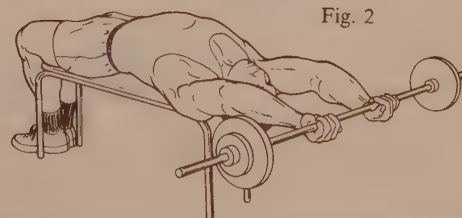


Fig. 2

LYING DECLINE REVERSE CLOSE GRIP BARBELL TRICEPS KICK BACK

Triceps

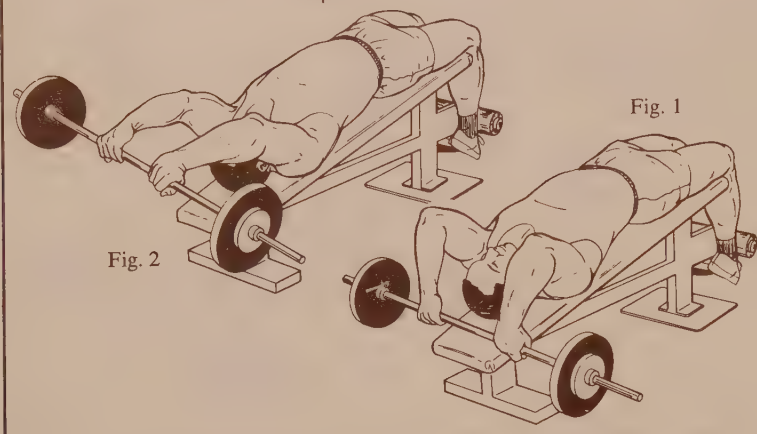


Fig. 1

Fig. 2

with your body. Pause a short time to contract the triceps muscles and then slowly lower the bar to starting position using a similar path and exhale.

■ Lying Decline Reverse Close Grip Barbell Triceps Kick Back

Grasp a barbell with both hands using a palms up grip about eight inches apart. Lie on a decline bench with your head close to the end. Position the barbell behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel with the floor. Pause a short time to contract the triceps muscles and then slowly lower the bar back to starting position using a similar path and exhale.

LYING SUPINE REVERSE CLOSE GRIP BARBELL TRICEPS KICK BACK

Triceps

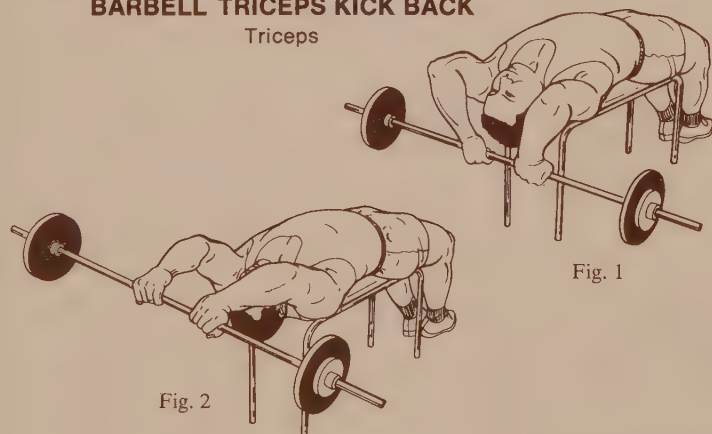


Fig. 1

Fig. 2

■ Lying Supine Reverse Close Grip Barbell Triceps Kick Back

Grasp a barbell with both hands using a palms up grip about eight inches apart. Lie on a flat bench with your head close to the end. Position the barbell behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel with the floor. Pause a short time to contract the triceps muscles and then slowly lower the bar back to starting position using a similar path and exhale.

LYING DECLINE REVERSE MEDIUM GRIP BARBELL TRICEPS KICK BACK

Triceps

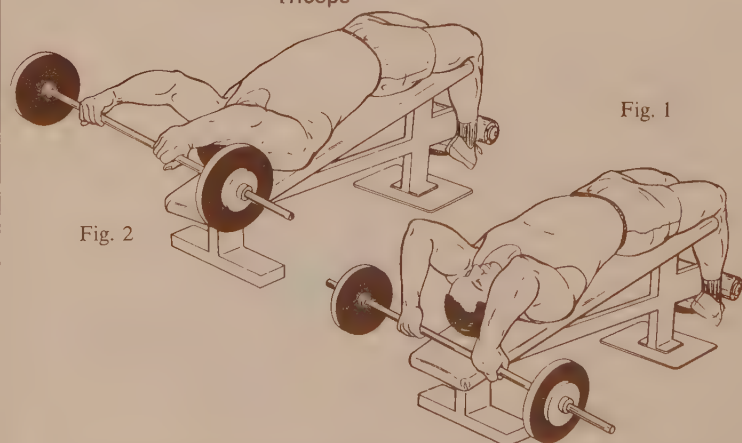


Fig. 1

Fig. 2

■ Lying Decline Reverse Medium Grip Barbell Tricep Kick Back

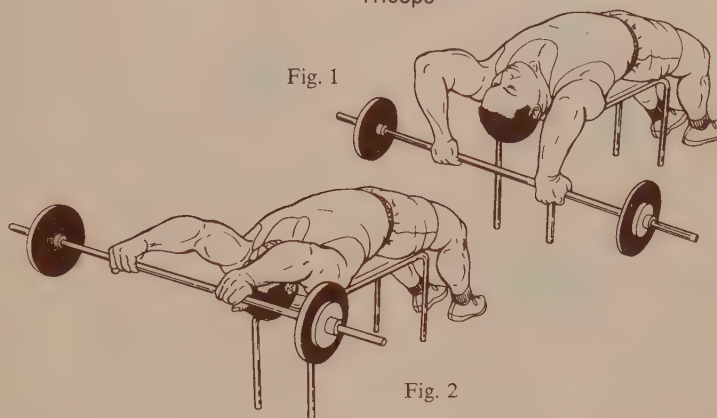
Grasp a barbell with both hands using a palms up grip about fourteen inches apart. Lie on a decline bench with your head close to the end. Position the barbell behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel with the floor. Pause a short time to contract the triceps muscles and then slowly lower the bar back to starting position using a similar path and exhale.

■ Lying Supine Reverse Medium Grip Barbell Triceps Kick Back

Grasp a barbell with both hands using a palms up grip about fourteen inches apart. Lie on a flat bench with your head close to the end. Position the barbell behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. Inhale and push the barbell up in a semicircular motion until your lower arms are also parallel with the floor. Pause a short time to contract the triceps muscles and then slowly lower the bar back to starting position using a similar path and exhale.

LYING SUPINE REVERSE MEDIUM GRIP BARBELL TRICEPS KICK BACK

Triceps

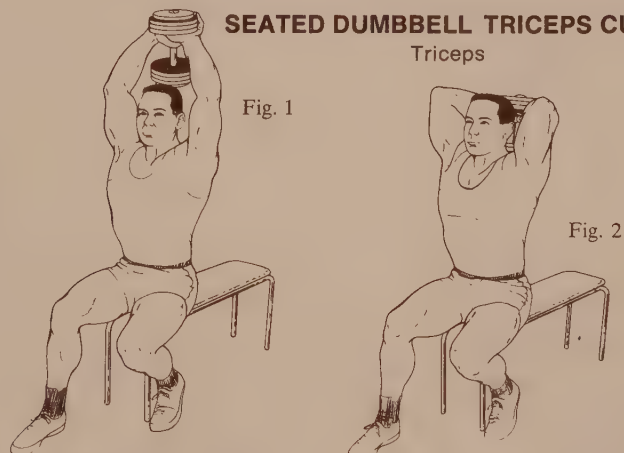


▲ Seated Dumbbell Triceps Curl

Grasp one dumbbell with both hands and raise it overhead to arm's length, vertical with the floor. As you are raising the dumbbell rotate your hands up and over until the top plates are resting in the palms of your hands while your thumbs remain around the handle. Sit at the end of a flat bench with your feet planted firmly on the floor and your back straight and head up. Keep your upper arms in close to the sides of your head during the exercise. Inhale and lower the dumbbell behind your head in a semicircular motion until your forearms and biceps touch. Return the weight to starting position using a similar path and exhale.

SEATED DUMBBELL TRICEPS CURL

Triceps

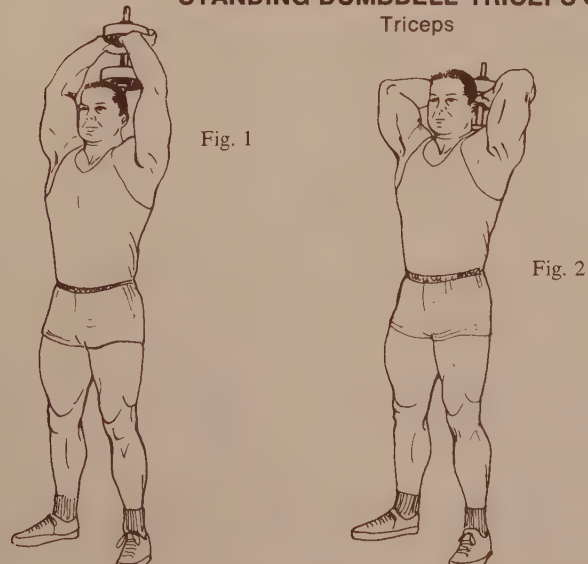


▲ Standing Dumbbell Triceps Curl

Grasp one dumbbell with both hands and raise it overhead to arm's length, vertical with the floor. As you are raising the dumbbell rotate your hands up and over until the top plates are resting in the palms of your hands while your thumbs remain around the handle. Stand erect with your back straight, head up and feet about sixteen inches apart. Keep your upper arms in close to the sides of your head during the exercise. Inhale and lower the dumbbell behind your head in a semicircular motion until your forearms and biceps touch. Return the weight to starting position using a similar path and exhale.

STANDING DUMBBELL TRICEPS CURL

Triceps



▲ Kneeling Dumbbell Triceps Curl

Triceps

Grasp one dumbbell with both hands and raise it overhead to arm's length vertical with the floor as you kneel on the floor sit-

SEATED BACK SUPPORTED DUMBBELL TRICEPS CURL

Triceps

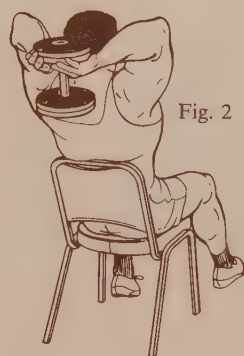


Fig. 2



Fig. 1

SEATED INCLINE DUMBBELL TRICEPS CURL

Triceps



Fig. 2

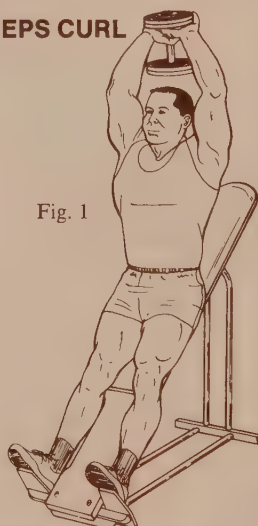


Fig. 1

INCLINE ONE ARM DUMBBELL TRICEPS CURL

Triceps



Fig. 2



Fig. 1

ting down until your leg biceps and calves touch. As you are raising the dumbbell rotate your hands up and over until the top plates are resting in the palms of your hands while your thumbs remain around the handle. Keep your upper arms in close to the sides of your head during the exercise. Inhale and lower the dumbbell behind your head in a semicircular motion until your forearms and biceps touch. Return the weight to starting position using a similar path and exhale.

▲ Seated Back Supported Dumbbell Triceps Curl

Grasp one dumbbell with both hands and raise it overhead to arm's length, vertical with the floor. As you are raising the dumbbell rotate your hands up and over until the top plates are resting in the palms of your hands while your thumbs remain around the handle. Sit on a chair with your feet planted firmly on the floor and your back against the support while your head is up. Keep your upper arms in close to the sides of your head during the exercise. Inhale and lower the dumbbell behind your head in a semicircular motion until your forearms and biceps touch. Return the weight to starting position using a similar path and exhale.

▲ Seated Incline Dumbbell Triceps Curl

Grasp one dumbbell with both hands and raise it overhead to arm's length vertical with the floor. As you are raising the dumbbell rotate your hands up and over until the top plates are resting in the palms of your hands while your thumbs remain around the handle. Sit on the incline bench with your feet on the foot pads and your back straight and head up. Keep your upper arms in close to the sides of your head during the exercise. Inhale and lower dumbbell behind your head in a semicircular motion until your forearms and biceps touch. Return the weight to starting position using a similar path and exhale.

▲ Incline One Arm Dumbbell Triceps Curl

Grasp a dumbbell in your right hand and press it overhead to arm's length as you lie back on an incline bench with your head down and feet on the foot pads. Keep your right arm in close to the right side of your face. Inhale and lower the dumbbell straight down in a semicircular motion by

bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.

▲ Kneeling One Arm Dumbbell Triceps Curl

Grasp a dumbbell in your right hand and press it overhead to arm's length as you kneel on the floor, sitting down until your leg biceps and calves are touching. Keep your back straight and head up and your right upper arm in close to the right side of your face. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions, repeating the same number with your left arm.

▲ Standing One Arm Dumbbell Triceps Curl

Grasp a dumbbell in your right hand and press it overhead to arm's length as you stand erect with your back straight, head up and feet about sixteen inches apart. Keep your right arm in close to the right side of your face. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.

▲ Seated Incline One Arm Dumbbell Triceps Curl

Triceps

Grasp a dumbbell in your right hand and press it overhead to arm's length as you sit on an incline bench with your back straight,

KNEELING ONE ARM DUMBBELL TRICEPS CURL

Triceps



Fig. 1



Fig. 2

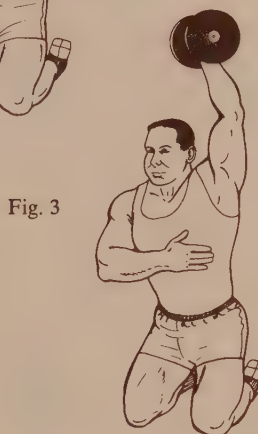


Fig. 3



Fig. 4

STANDING ONE ARM DUMBBELL TRICEPS CURL

Triceps



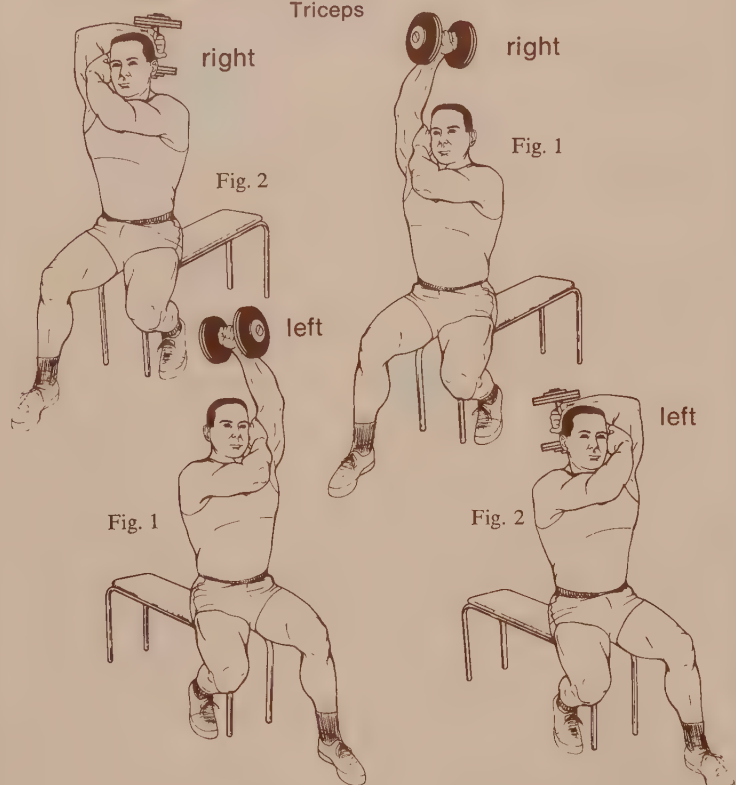
Fig. 1



Fig. 2

SEATED ONE ARM DUMBBELL TRICEPS CURL

Triceps



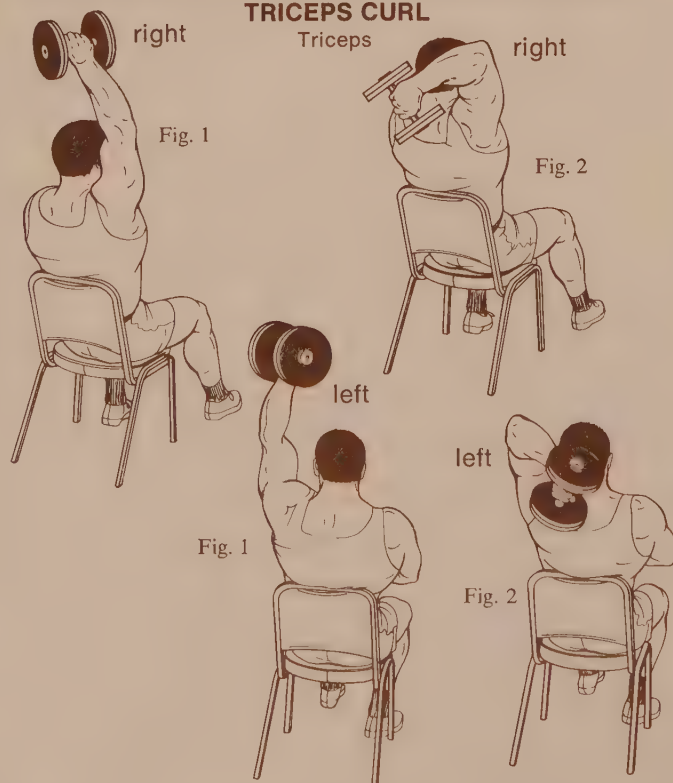
head up and feet on the foot pads. Keep your right arm in close to the right side of your face. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.

▲ Seated One Arm Dumbbell Triceps Curl

Grasp a dumbbell in your right hand and press it overhead to arm's length as you sit at the end of a bench with your feet about sixteen inches apart and planted firmly on the floor. Keep your head up, back straight, and right upper arm in close to the right side of your face. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.

SEATED BACK SUPPORTED ONE ARM DUMBBELL TRICEPS CURL

Triceps

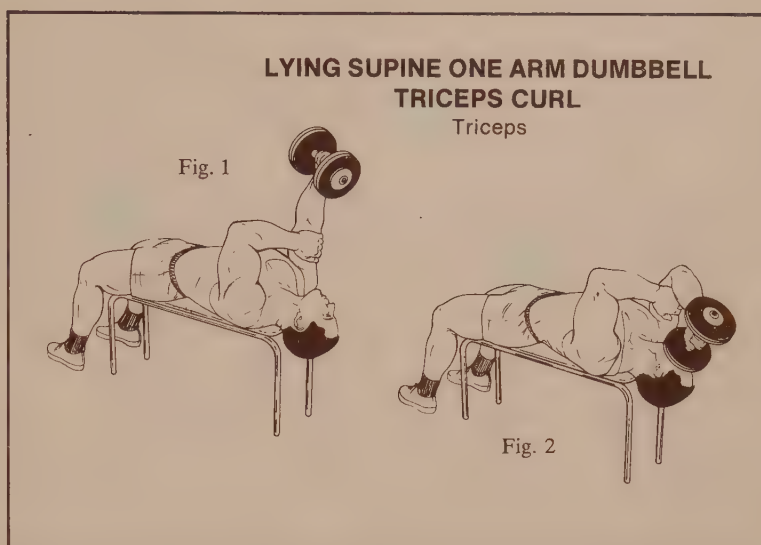


▲ Seated Back Supported One Arm Dumbbell Triceps Curl

Grasp a dumbbell in your right hand and press it overhead to arm's length as you sit on a chair with your back against the support, head up and feet planted firmly on the floor. Keep your right arm in close to the right side of your face. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.

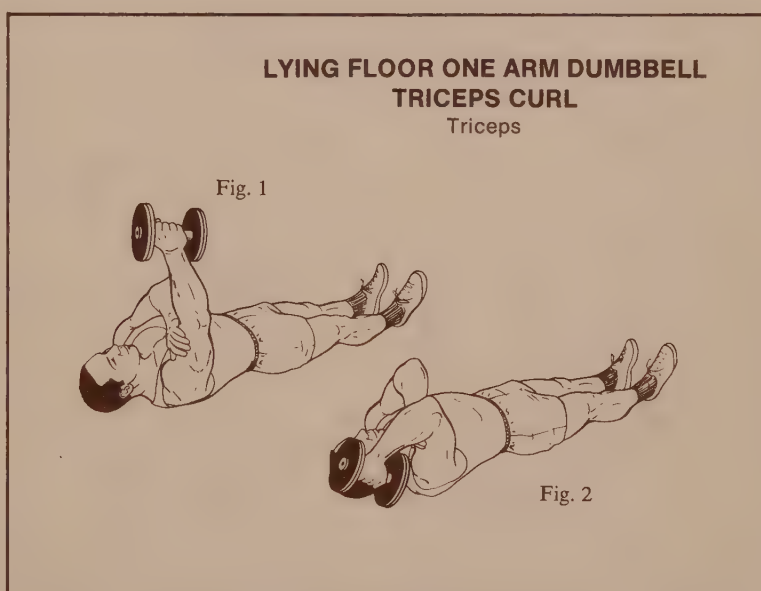
▲ Lying Supine One Arm Dumbbell Triceps Curl

Lie on a flat bench with your head over the end of the bench pointing downward towards the floor. Hold a dumbbell in your right hand at arm's length keeping it in line with your right shoulder. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.



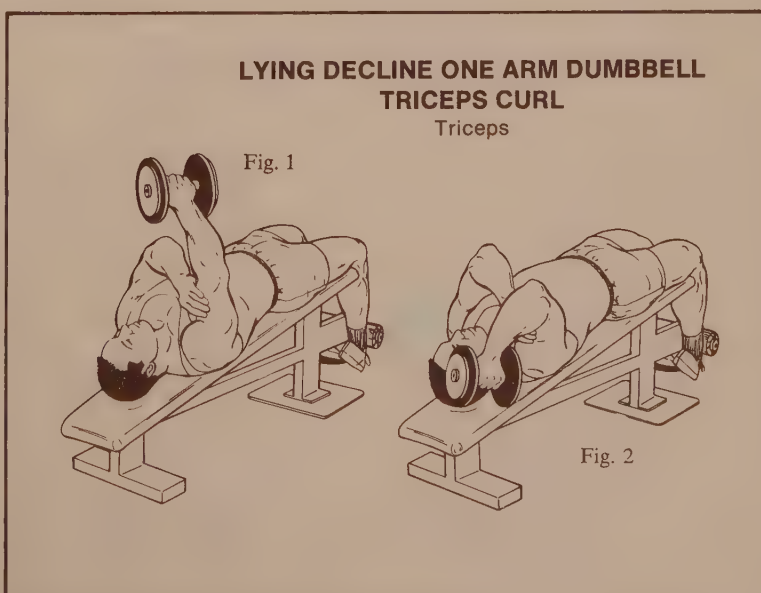
▲ Lying Floor One Arm Dumbbell Triceps Curl

Lie on the floor with your head down. Hold a dumbbell in your right hand at arm's length, keeping it in line with your right shoulder. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.



▲ Lying Decline One Arm Dumbbell Triceps Curl

Lie back on a decline bench with your head on the bench and your chin pointing upward. Hold a dumbbell in your right hand at arm's length keeping it in line with your right shoulder. Inhale and lower the dumbbell straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Do the prescribed number of repetitions with your right arm and then change positions repeating the same number with your left arm.



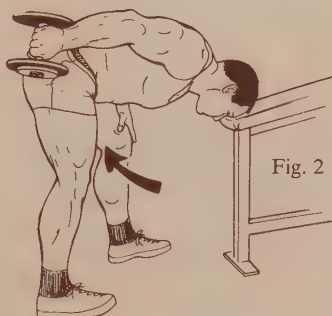
STANDING BENT OVER HEAD SUPPORTED ONE DUMBBELL TRICEPS EXTENSION

Triceps

Fig. 1



Fig. 2



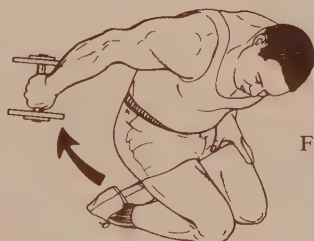
KNEELING BENT OVER ONE DUMBBELL TRICEPS EXTENSION

Triceps

Fig. 1



Fig. 2



SEATED BENT OVER ONE DUMBBELL TRICEPS EXTENSION

Triceps

Fig. 1

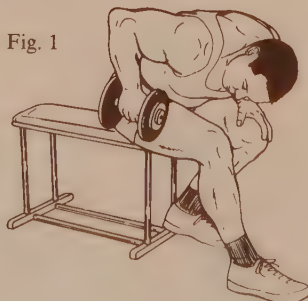
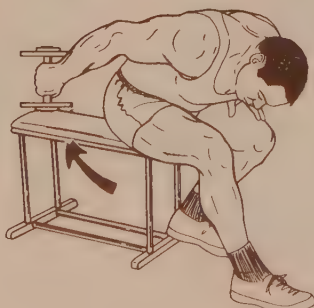


Fig. 2



▲ Standing Bent Over Head Supported One Dumbbell Triceps Extension

Hold a dumbbell in your right hand with your palm facing in. Bend at the waist until your upper body is parallel with the floor. Place your forehead on a comfortable object to help support your upper body and have your legs slightly bent at the knees. Draw your right upper arm to your right side and keep your lower arm vertical. Inhale and press the dumbbell back in a semicircular motion until your entire arm is parallel with the floor. Hold the dumbbell at the top position for a short period to contract the triceps muscle and then slowly lower the weight back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

▲ Kneeling Bent Over One Dumbbell Triceps Extension

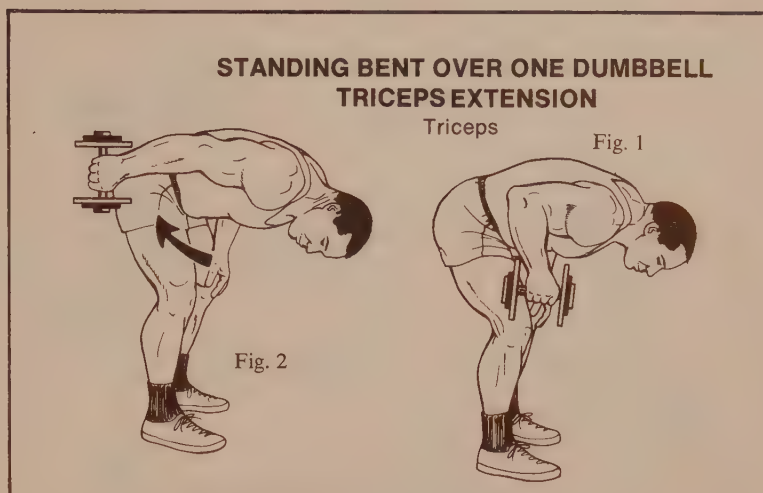
Hold a dumbbell in your right hand with your palm facing in. Kneel on the floor until your leg biceps and calves are touching. Bend at the waist placing your upper body on your upper thighs. Draw your right upper arm to your side and keep your lower arm vertical. Inhale and press the dumbbell back in a semicircular motion until your entire arm is parallel with the floor. Hold the dumbbell at the top position for a short period to contract the triceps muscle and then slowly lower the weight back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

▲ Seated Bent Over One Dumbbell Triceps Extension

Hold a dumbbell in your right hand with your palm facing in. Sit at the end of a flat bench with your feet planted firmly on the floor and bent at the waist placing your upper chest on your upper thighs. Draw your right upper arm to your side and keep your lower arm vertical. Inhale and press the dumbbell back in a semicircular motion until your entire arm is parallel with the floor. Hold the dumbbell at the top position for a short period to contract the triceps muscle and then slowly lower the weight back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.

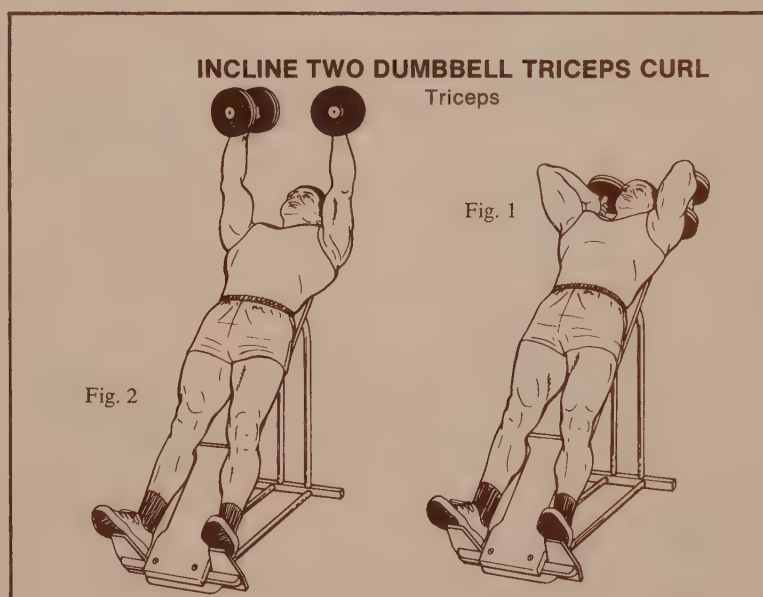
▲ Standing Bent Over One Dumbbell Triceps Extension

Hold a dumbbell in your right hand with your palms facing in. Bend at the waist until your upper body is parallel with the floor. Draw your right upper arm to your side and keep your lower arm vertical. Inhale and press the dumbbell back in a semicircular motion until your entire arm is parallel with the floor. Hold the dumbbell at the top position for a short period to contract the triceps muscle and then slowly lower the weight back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side.



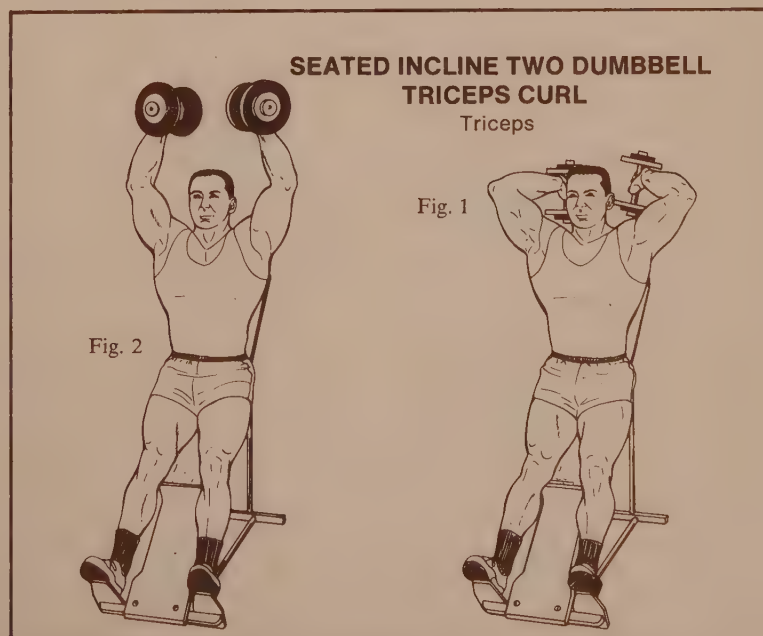
■ Incline Two Dumbbell Triceps Curl

Grasp a dumbbell in each hand and lie back on an incline bench with your head down and feet on the foot pads. Press the dumbbells overhead to arm's length above your shoulders. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale. Try to keep your upper arms in close to the sides of your face but you will find it difficult to do.



■ Seated Incline Two Dumbbell Triceps Curl

Grasp a dumbbell in each hand and sit on an incline bench with your back straight, head up and feet on the foot pads. Press the dumbbells overhead to arm's length above your shoulders. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keep your upper arms vertical throughout the exercise. The dumbbell should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position, using the same path, and exhale. Try to keep your upper arms in close to the sides of your face but you will find it difficult to do.



■ Kneeling Two Dumbbell Triceps Curl

Grasp a dumbbell in each hand and kneel on the floor sitting down until your leg bi-

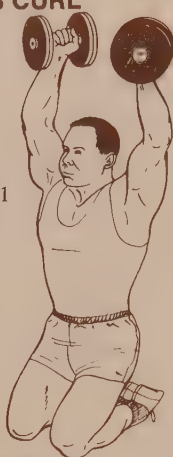
KNEELING TWO DUMBBELL TRICEPS CURL

Triceps



Fig. 2

Fig. 1



ceps and calves touch. Keep your back straight and head up. Press the dumbbells overhead to arm's length above your shoulders. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale. Try to keep your upper arms in close to the sides of your face but you will find it difficult to do.

■ Seated Two Dumbbell Triceps Curl

Grasp a dumbbell in each hand and sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Press the dumbbells overhead to arm's length above your shoulders. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale. Try to keep your upper arms in close to the sides of your face but you will find it difficult to do.

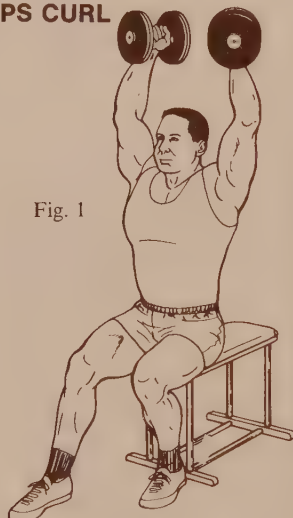
SEATED TWO DUMBBELL TRICEPS CURL

Triceps



Fig. 2

Fig. 1



■ Standing Two Dumbbell Triceps Curl

Grasp a dumbbell in each hand and stand erect with your back straight, head up, hips and legs locked out. Press the dumbbells overhead to arm's length. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale.

STANDING TWO DUMBBELL TRICEPS CURL

Triceps



Fig. 2

Fig. 1



■ Seated Back Supported Two Dumbbell Triceps Curl

Triceps

Grasp a dumbbell in each hand and sit on a chair with your back against the support, head up and feet planted firmly on the floor. Press the dumbbells overhead to arm's length above your shoulders. Inhale and lower both dumbbells straight down in

a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale. Try to keep your upper arms in close to the sides of your face but you will find it difficult to do.

▲ Lying Supine Two Dumbbell Triceps Curl

Lie on a flat bench. Hold a dumbbell in each hand and press them to arm's length keeping them in line with your shoulders. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale.

▲ Lying Decline Two Dumbbell Triceps Curl

Lie on a decline bench. Hold a dumbbell in each hand and press them to arm's length keeping them in line with your shoulders. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale.

▲ Lying Floor Two Dumbbell Triceps Curl

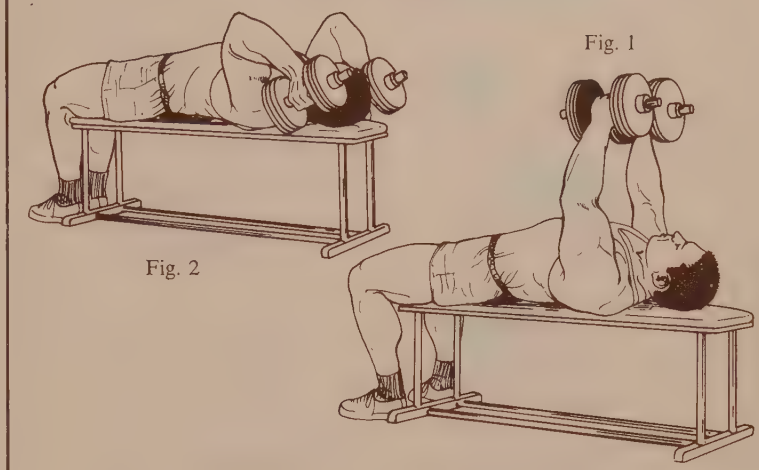
Lie on the floor. Hold a dumbbell in each hand and press them to arm's length keeping them in line with your shoulders. Inhale and lower both dumbbells straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The dumbbells should be lowered until your forearms and biceps touch. Press the dumbbells back to starting position using the same path and exhale.

■ Incline Alternated Dumbbell Triceps Curl

Lie on an incline bench. Hold a dumbbell in

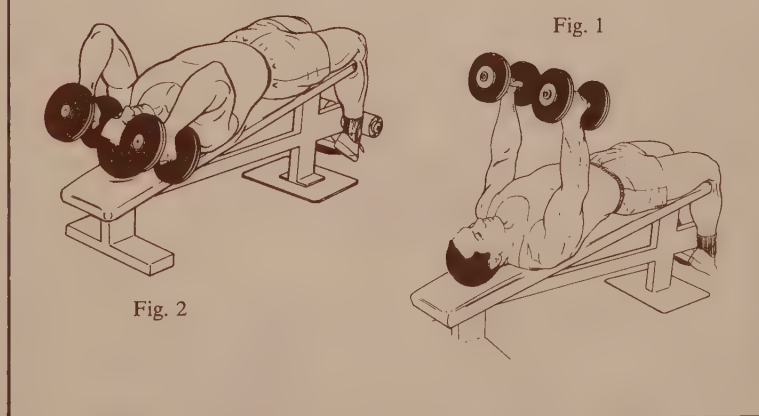
LYING SUPINE TWO DUMBBELL TRICEPS CURL

Triceps



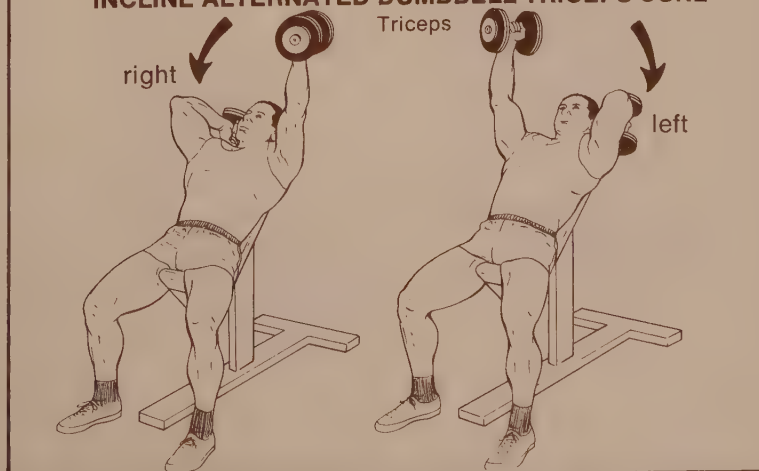
LYING DECLINE TWO DUMBBELL TRICEPS CURL

Triceps



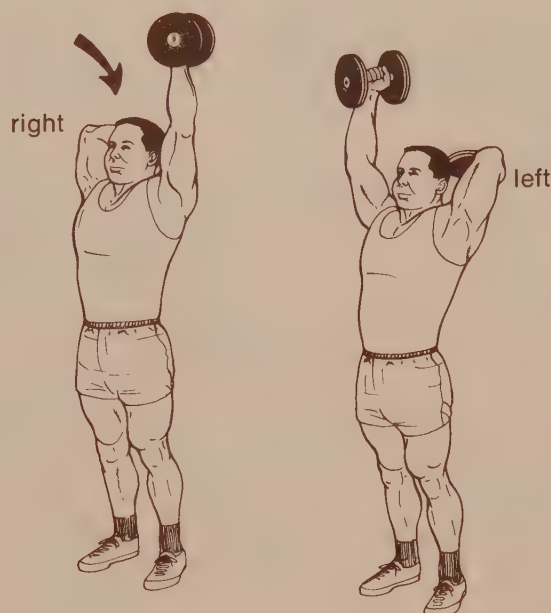
INCLINE ALTERNATED DUMBBELL TRICEPS CURL

Triceps



STANDING ALTERNATED DUMBBELL TRICEPS CURL

Triceps



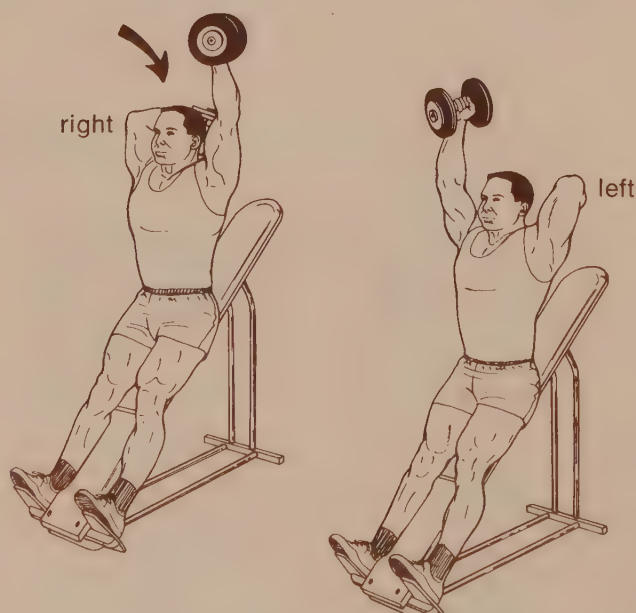
each hand and press them to arm's length keeping them in line with your shoulders. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from the right arm to left arm until the prescribed number of repetitions are completed.

■ Standing Alternated Dumbbell Triceps Curl

Hold a dumbbell in each hand and press them to arm's length overhead keeping your back straight, head up and feet about sixteen inches apart. Have the dumbbells vertical with the floor in the overhead position. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are completed.

SEATED INCLINE ALTERNATED DUMBBELL TRICEPS CURL

Triceps



■ Seated Incline Alternated Dumbbell Triceps Curl

Hold a dumbbell in each hand and press them to arm's length overhead as you sit on an incline bench with your back straight, head up and feet planted on the foot pads. Have the dumbbells vertical with the floor in the overhead position. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are completed.

■ Seated Back Supported Alternated Dumbbell Triceps Curl

Hold a dumbbell in each hand and press them to arm's length overhead as you sit on a chair with your back against the support, head up and feet planted firmly on the floor. Have the dumbbells vertical with the floor in the overhead position. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are done.

■ Seated Alternated Dumbbell Triceps Curl

Triceps

Hold a dumbbell in each hand and press them to arm's length overhead as you sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Have the dumbbells vertical with the floor in the overhead position. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are completed.

■ Kneeling Alternated Dumbbell Triceps Curl

Hold a dumbbell in each hand and press them to arm's length overhead as you kneel on the floor and sit down until your leg biceps and calves touch. Keep your back straight and head up. Have the dumbbell vertical with the floor in the overhead position. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and low-

SEATED BACK SUPPORTED ALTERNATED DUMBBELL TRICEPS CURL

Triceps



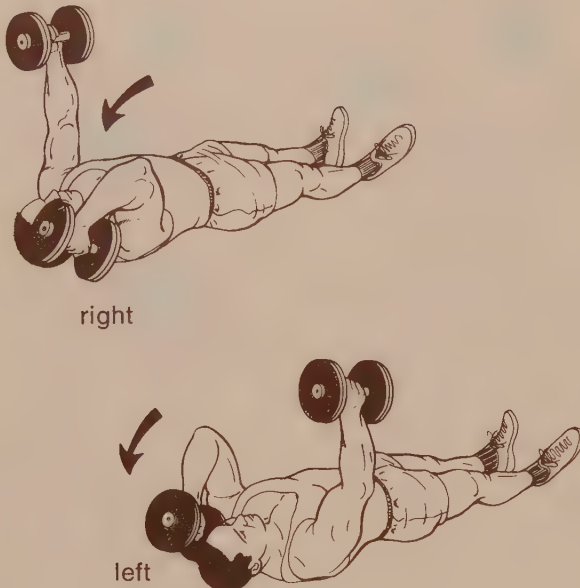
KNEELING ALTERNATED DUMBBELL TRICEPS CURL

Triceps



LYING FLOOR ALTERNATED DUMBBELL TRICEPS CURL

Triceps



er the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are completed.

▲ Lying Floor Alternated Dumbbell Triceps Curl

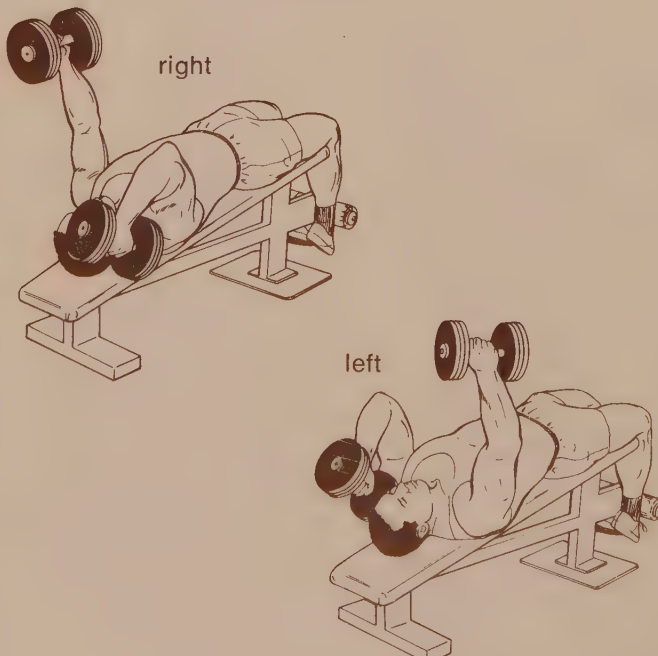
Lie on the floor. Hold a dumbbell in each hand and press them to arm's length keeping them in line with your shoulders. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are completed.

▲ Lying Decline Alternated Dumbbell Triceps Curl

Lie back on a decline bench with your head down and chin pointing upward. Hold a dumbbell in each hand and press them to arm's length keeping them in line with your shoulders. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical. The dumbbell should be lowered until your forearm and biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are completed.

LYING DECLINE ALTERNATED DUMBBELL TRICEPS CURL

Triceps



▲ Lying Supine Alternated Dumbbell Triceps Curl

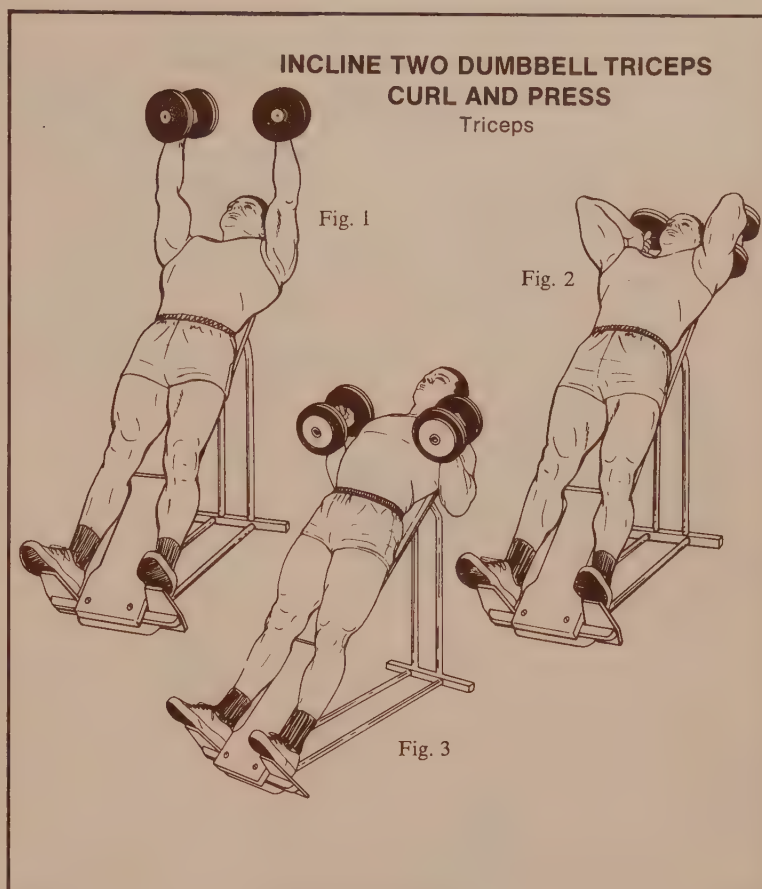
Triceps

Lie on a flat bench with your head off the end of the bench and pointing down towards the floor. Hold a dumbbell in each hand and press them to arm's length keeping them in line with your shoulders. Inhale and lower the dumbbell in your right hand straight down in a semicircular motion by bending your arm at the elbow but keeping your upper arms vertical. The dumbbell should be lowered until your forearm and

biceps touch. Press the dumbbell back to starting position using the same path and exhale. Now inhale and lower the dumbbell in your left hand in a similar manner and return to starting position and exhale. Alternate from right arm to left arm until the prescribed number of repetitions are completed.

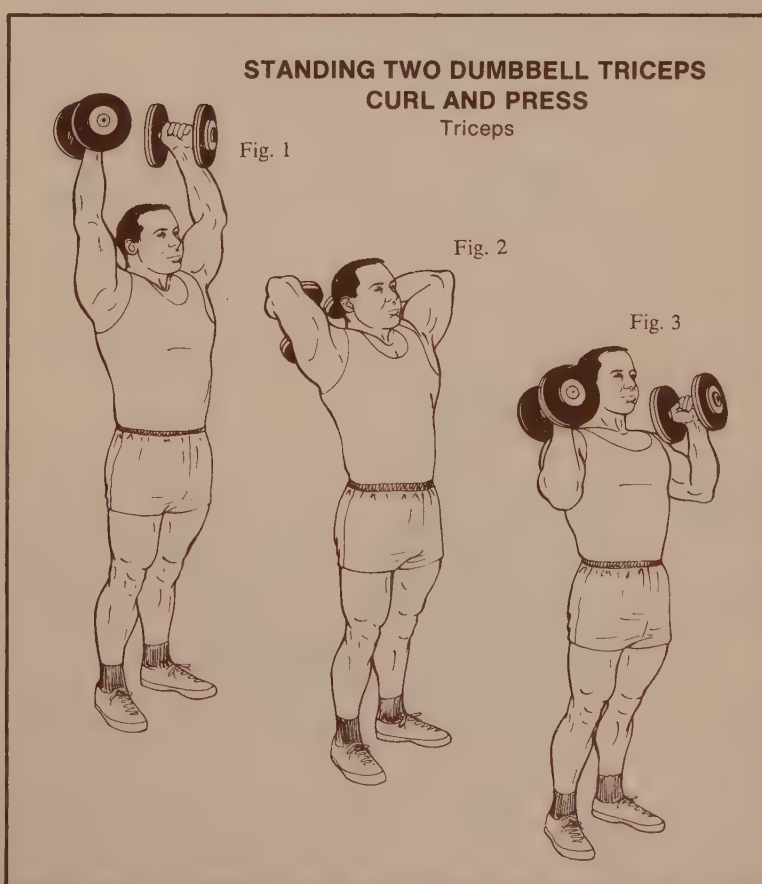
▲ Incline Two Dumbbell Triceps Curl and Press

Grasp a dumbbell in each hand and lie back on an incline bench with your head down and feet on the foot pads. Press the dumbbells overhead to arm's length. Inhale and lower both dumbbells straight down in a semicircular motion behind your head by bending your arms at the elbows but keeping your upper arms vertical. The dumbbells should be lowered until your forearms and biceps touch. Now pull the dumbbells over to the sides of your upper chest and have your upper arms directly at your sides still having the forearms and biceps touching. Press the dumbbells back to arm's length, keeping your elbows in close to cause the triceps muscles to do the work, and exhale.



▲ Standing Two Dumbbell Triceps Curl and Press

Grasp a dumbbell in each hand and stand erect with your back straight, head up, hips and legs locked out. Press the dumbbells overhead to arm's length. Inhale and lower both dumbbells straight down in a semicircular motion behind your head by bending your arms at the elbows but keeping your upper arms vertical. The dumbbells should be lowered until your forearms and biceps touch. Now pull the dumbbells over to the front of your shoulders and have your upper arms directly at your sides still having the forearms and biceps touching. Press the dumbbells back to arm's length keeping your elbows in close to cause the triceps muscles to do the work and exhale.



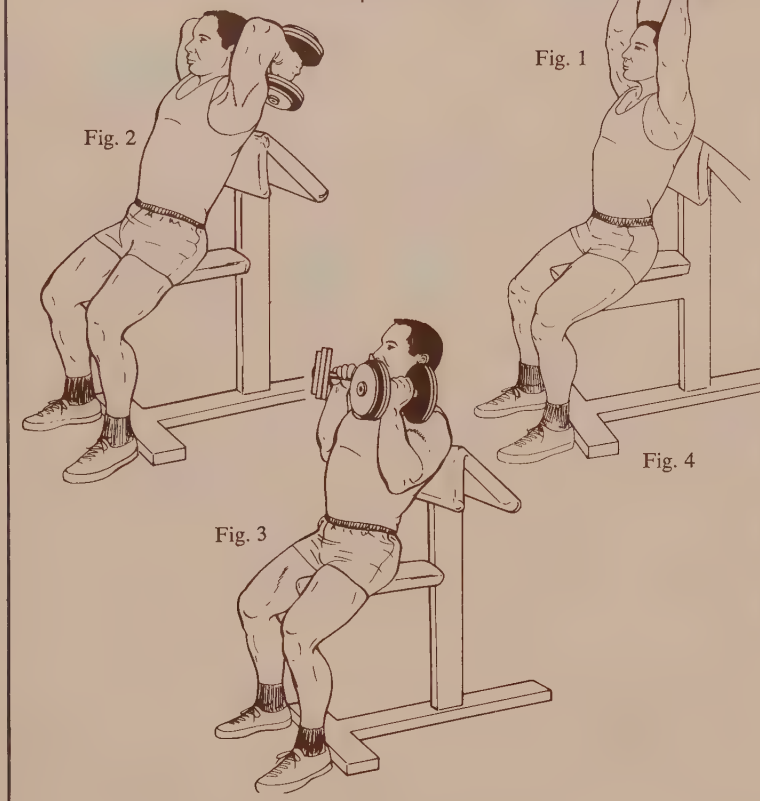
▲ Seated Incline Two Dumbbell Triceps Curl and Press

Triceps

Grasp a dumbbell in each hand and sit on an incline bench with your back straight, head up and feet on the foot pads. Press the dumbbells overhead to arm's length. Inhale and lower both dumbbells straight down in a semicircular motion behind your head by bending your arms at the elbows but keeping your upper arms vertical. The

SEATED BACK SUPPORTED TWO DUMBBELL TRICEPS CURL AND PRESS

Triceps



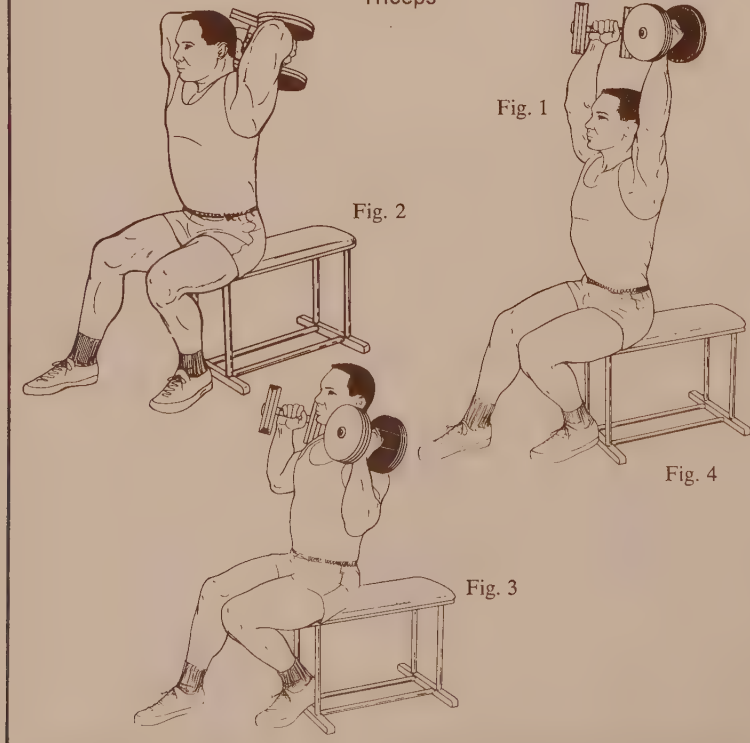
dumbbells should be lowered until your forearms and biceps touch. Now pull the dumbbells over to the front of your shoulders and have your upper arms directly at your sides still having the forearms and biceps touching. Press the dumbbells back to arm's length, keeping your elbows in close to cause the triceps muscles to do the work, and exhale.

▲ Seated Back Supported Two Dumbbell Triceps Curl and Press

Grasp a dumbbell in each hand and sit on a chair with your back against the support, your head up and feet planted firmly on the floor. Press the dumbbells overhead to arm's length. Inhale and lower both dumbbells straight down in a semicircular motion behind your head by bending your arms at the elbows but keeping your upper arms vertical. The dumbbells should be lowered until your forearms and biceps touch. Now pull the dumbbells over to the front of your shoulders and have your upper arms directly at your sides still having the forearms and biceps touching. Press the dumbbells back to arm's length keeping your elbows in close to cause the triceps muscles to do the work and exhale.

SEATED TWO DUMBBELL TRICEPS CURL AND PRESS

Triceps



▲ Seated Two Dumbbell Triceps Curl and Press

Grasp a dumbbell in each hand and sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Press the dumbbells overhead to arm's length. Inhale and lower both dumbbells straight down in a semicircular motion behind your head by bending your arms at the elbows but keeping your upper arms vertical. The dumbbells should be lowered until your forearms and biceps touch. Now pull the dumbbells over to the front of your shoulders and have your upper arms directly at your sides still having the forearms and biceps touching. Press the dumbbells back to arm's length keeping your elbows in close to cause the triceps muscles to do the work and exhale.

▲ Lying Decline Two Dumbbell Triceps Curl and Press

Triceps

Hold a dumbbell in each hand. Lie back on a decline bench and keep your head on the bench. Press the dumbbells to arm's length keeping them in line with your shoulders. Inhale and lower the dumbbells straight

down in a semicircular motion by bending your arms at your elbows but keeping your upper arms in close and vertical. Continue to lower the weights until your forearms and biceps touch. With your forearms and biceps touching, pull the dumbbells over past your face and down to the sides of your chest. The weights should then be in line with your lower pectorals. Now press the dumbbells back to arm's length, keeping your elbows in close to cause the triceps muscles to do the work and exhale.

▲ Lying Supine Two Dumbbell Triceps Curl and Press

Hold a dumbbell in each hand. Lie on a flat bench keeping your head on the bench. Press the dumbbells to arm's length keeping them in line with your shoulders. Inhale and lower the dumbbells straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms in close and vertical. Continue to lower the weights until your forearms and biceps touch. With your forearms and biceps touching, pull the dumbbells over past your face and down to the sides of your chest. The weights should then be in line with your lower pectorals. Now press the dumbbells back to arm's length keeping your elbows in close to cause the triceps muscles to do the work and exhale.

■ Lying Supine Two Dumbbell Triceps Kick Back

Triceps

Hold a dumbbell in each hand and lie on a flat bench with your head close to the end. Position the dumbbells behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. With your palms facing each other, inhale and push the dumbbells up in a semicircular motion until your lower arms are also parallel with the floor. Pause a short time to contract the triceps muscles and then slowly lower the dumbbells back to starting position using a similar path and exhale.

■ Lying Decline Two Dumbbell Triceps Kick Back

Hold a dumbbell in each hand lie back on a decline bench with your head as close to the end of the bench as possible. Position the dumbbells behind your head by keeping your upper arms close to the sides of

LYING SUPINE TWO DUMBBELL TRICEPS CURL AND PRESS

Triceps

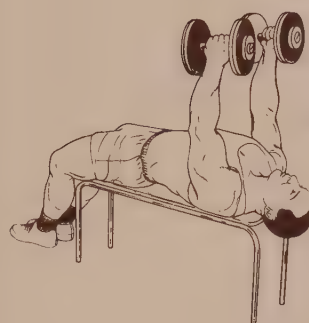


Fig. 1

Fig. 4

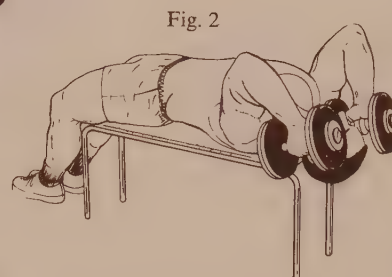


Fig. 2

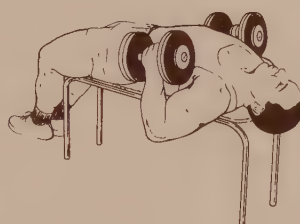


Fig. 3

LYING DECLINE TWO DUMBBELL TRICEPS KICK BACK

Triceps

Fig. 1

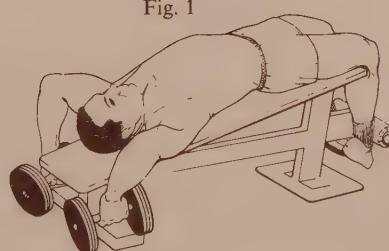
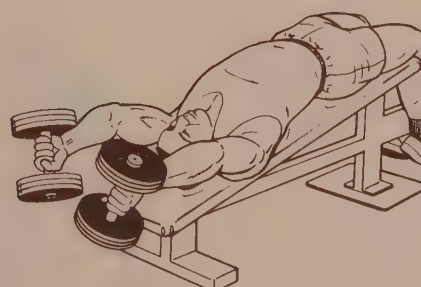
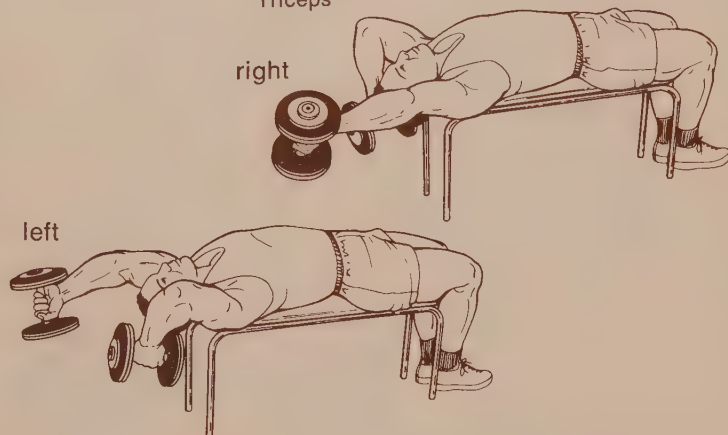


Fig. 2



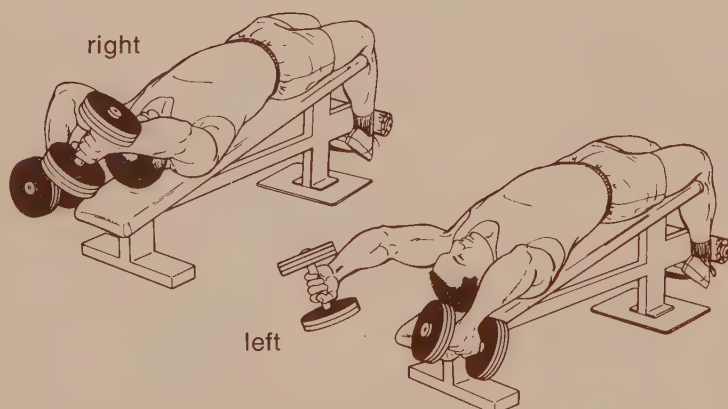
LYING SUPINE ALTERNATED DUMBBELL TRICEPS KICK BACK

Triceps



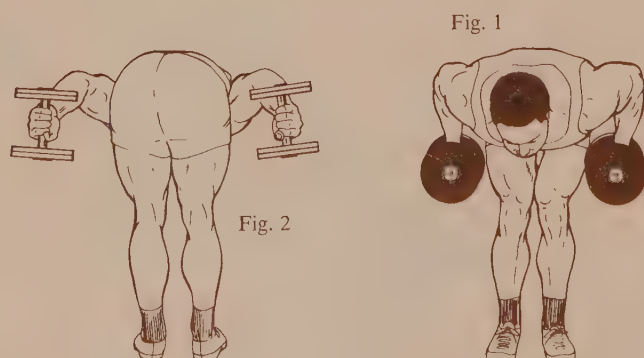
LYING DECLINE ALTERNATED DUMBBELL TRICEPS KICK BACK

Triceps



STANDING BENT OVER TWO DUMBBELL TRICEPS EXTENSION

Triceps



your head and in line with your body. Your lower arms should be vertical to the floor. With your palms facing each other, inhale and push the dumbbells up in a semi-circular motion until your lower arms are also in line with your body. Pause a short time to contract the triceps muscles and then slowly lower the dumbbells back to starting position using a similar path and exhale.

■ Lying Supine Alternated Dumbbell Triceps Kick Back

Hold a dumbbell in each hand and lie on a flat bench with your head close to the end. Position the dumbbells behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. With your palms facing each other, push the dumbbell in your right hand up in a semicircular motion until your lower right arm is also parallel with the floor. As you commence to lower your right arm back to starting position, bring your lower left arm up in a semicircular motion until your lower left arm is parallel with the floor. As your right arm is being lowered your left arm is being raised. Inhale as you raise your right arm and exhale as you raise your left arm.

■ Lying Decline Alternated Dumbbell Triceps Kick Back

Hold a dumbbell in each hand and lie back on a decline bench with your head close to the end. Position the dumbbells behind your head by keeping your upper arms close to the sides of your head and parallel with the floor. Your lower arms should be vertical to the floor. With your palms facing each other, push the dumbbell in your right hand up in a semicircular motion until your lower right arm is also parallel with the floor. As you commence to lower your right arm back to starting position, bring your left arm up in a semicircular motion until your lower left arm is parallel with the floor. As your right arm is being lowered your left arm is being raised. Inhale as you raise your right arm and exhale as you raise your left arm.

▲ Standing Bent Over Two Dumbbell Triceps Extension

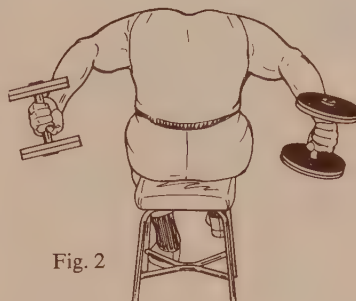
Hold a dumbbell in each hand with your palms facing in. Bend at the waist until your

upper body is parallel with the floor, keeping your head up. Have your legs slightly bent at the knees with your feet about twelve inches apart. Draw your upper arms to your sides and keep your lower arms vertical. Inhale and press the dumbbells back in a semicircular motion until your arms are parallel with the floor. Hold the dumbbells at the top position for a short period to contract the triceps muscles and then slowly lower the weights back to starting position and exhale.

▲ Seated Bent Over Two Dumbbell Triceps Extension

Hold a dumbbell in each hand with your palms facing in. Sit at the end of a bench with your feet planted firmly on the floor. Bend at the waist and place your chest on your upper thighs. Keep your head up. Draw your upper arms to your sides and keep your lower arms vertical. Inhale and press the dumbbells back in a semicircular motion until your arms are parallel with the floor. Hold the dumbbells at the top position for a short period to contract the triceps muscles and then slowly lower the weights back to starting position and exhale.

Fig. 2



SEATED BENT OVER TWO DUMBBELL TRICEPS EXTENSION

Triceps

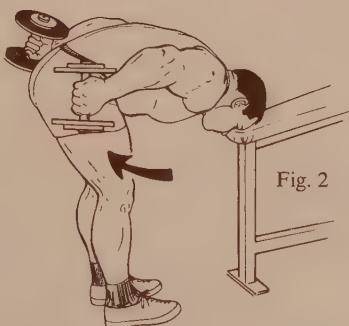
Fig. 1



▲ Standing Bent Over Head Supported Two Dumbbell Triceps Extension

Hold a dumbbell in each hand with your palms facing in. Bend at the waist until your upper body is parallel with the floor and place your forehead on a comfortable object to help support your upper body during the exercise. Draw your upper arms to your sides and keep your lower arms vertical. Inhale and press the dumbbells back in a semicircular motion until your arms are parallel with the floor. Hold the dumbbells at the top position for a short period to contract the triceps muscles and then slowly lower the weights back to starting position and exhale.

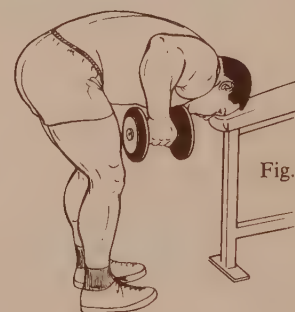
Fig. 2



STANDING BENT OVER HEAD SUPPORTED TWO DUMBBELL TRICEPS EXTENSION

Triceps

Fig. 1

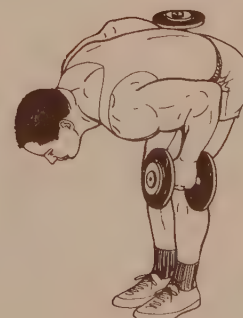


STANDING BENT OVER ALTERNATED DUMBBELL TRICEPS EXTENSION

Triceps

right

left

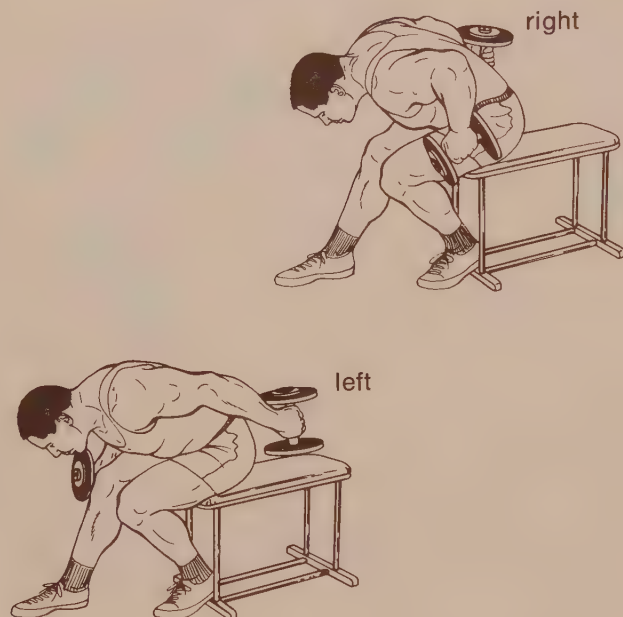


▲ Standing Bent Over Alternated Dumbbell Triceps Extension

Hold a dumbbell in each hand with your palms facing in. Stand erect with your back straight, head up and feet about twelve inches apart. Bend at the waist until your upper body is parallel with the floor and your head is up. Draw your upper arms to your sides and keep your lower arms vertical. Press the dumbbell in your right hand

SEATED BENT OVER ALTERNATED DUMBBELL TRICEPS EXTENSION

Triceps



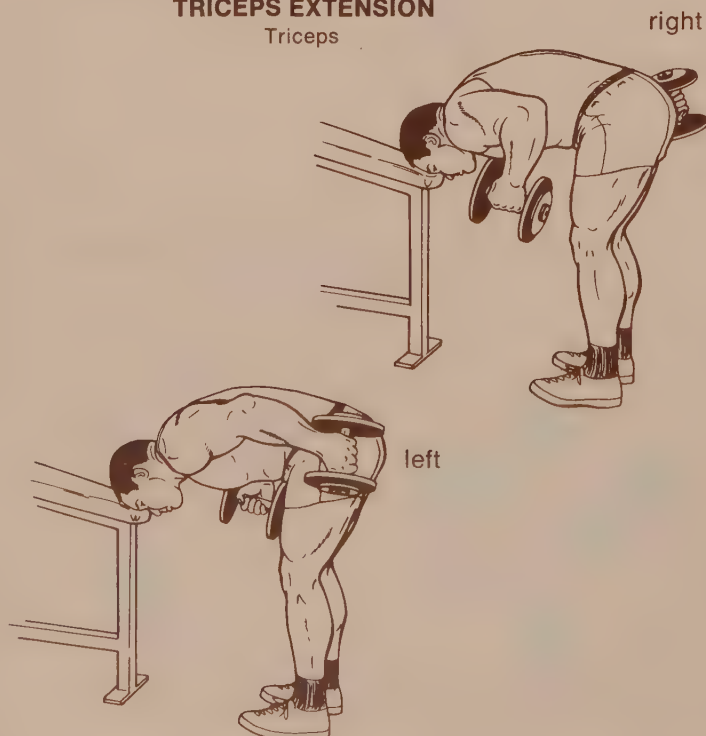
back in a semicircular motion until your right arm is parallel with the floor. Hold the dumbbell at the top position for a short period to contract the triceps muscle. As you commence to slowly lower the right arm back to starting position, start raising your left arm in a similar manner so as your right arm returns to starting position your left arm is in the top position. Inhale as your right hand is raised and exhale as your left hand is raised.

▲ Seated Bent Over Alternated Dumbbell Triceps Extension

Hold a dumbbell in each hand with your palms facing in. Sit at the end of a bench with your feet planted firmly on the floor. Bend at the waist and place your chest on your upper thighs. Keep your head up. Draw your upper arms to your sides and keep your lower arms vertical. Press the dumbbell in your right hand back in a semicircular motion until your right arm is parallel with the floor. Hold the dumbbell at the top position for a short period to contract the triceps muscle. As you commence to slowly lower the right arm back to starting position start raising your left arm in a similar manner so as your right arm returns to starting position your left arm is in the top position. Inhale as your right hand is raised and exhale as your left hand is raised.

STANDING BENT OVER HEAD SUPPORTED ALTERNATED DUMBBELL TRICEPS EXTENSION

Triceps

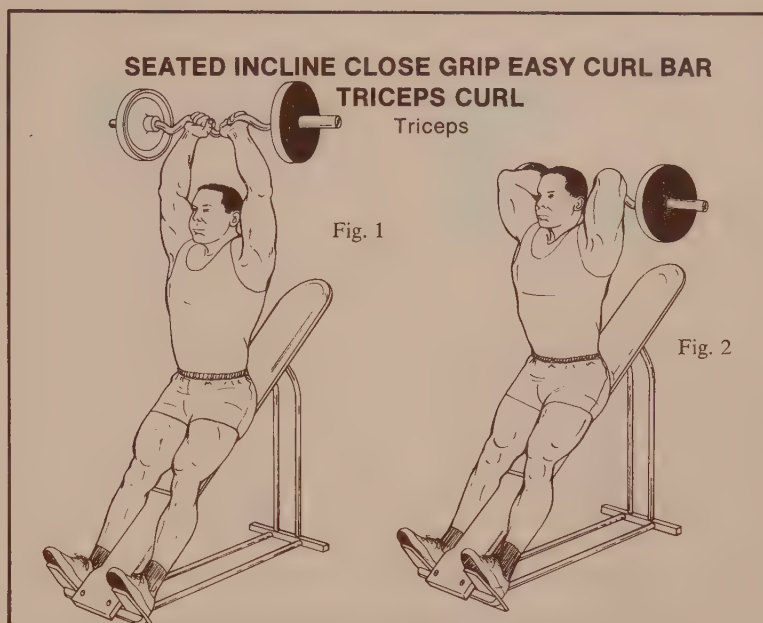


▲ Standing Bent Over Head Supported Alternated Dumbbell Triceps Extension

Hold a dumbbell in each hand with your palms facing in. Stand erect with your back straight, head up and feet about twelve inches apart. Bend at the waist until your upper body is parallel with the floor and rest your forehead on some comfortable object to help support your upper body. Draw your upper arms to your sides and keep your lower arms vertical. Press the dumbbell in your right hand back in a semicircular motion until your right arm is parallel with the floor. Hold the dumbbell at the top position for a short period to contract the triceps muscle. As you commence to slowly lower the right arm back to starting position, start raising your left arm in a similar manner so as your right arm returns to starting position your left arm is in the top position. Inhale as your right hand is raised and exhale as your left hand is raised.

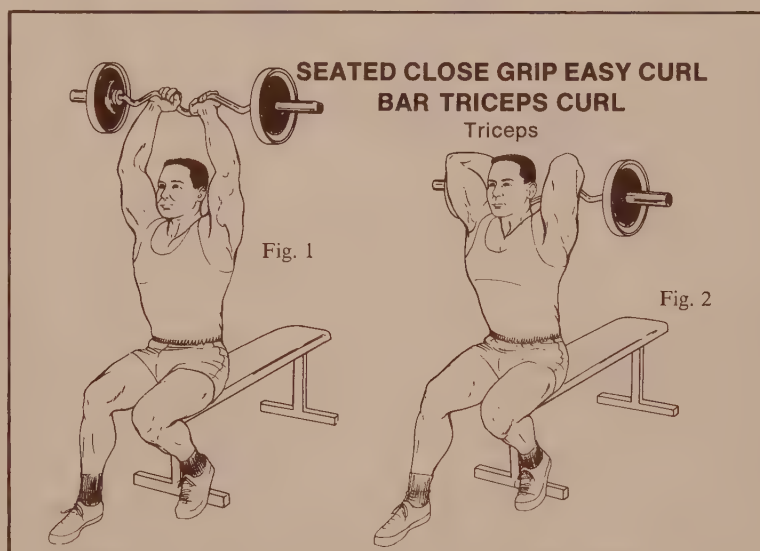
▲ Seated Incline Close Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Sit down on the incline bench with your feet on the foot pads. Keep your back straight and your head up. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position, using the same path, and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



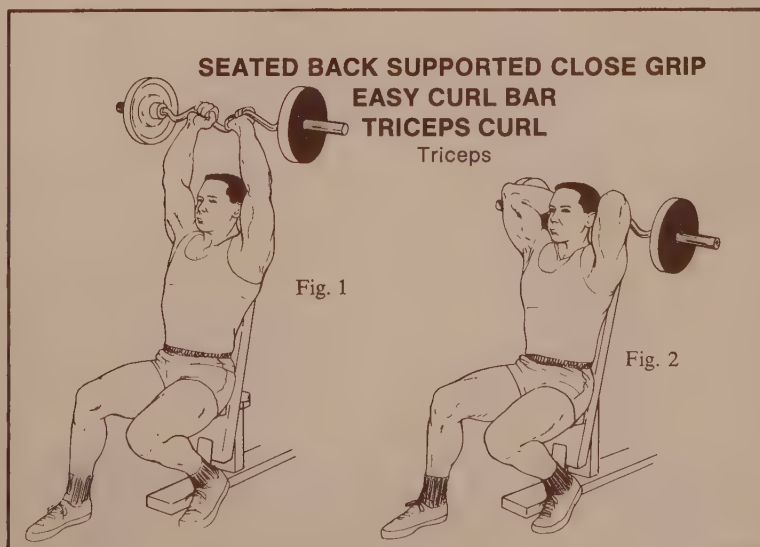
▲ Seated Close Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



▲ Seated Back Supported Close Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Sit on a chair with your back against the support, keep your head up and feet planted firmly on the floor. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



KNEELING CLOSE GRIP EASY CURL BAR TRICEPS CURL

Triceps

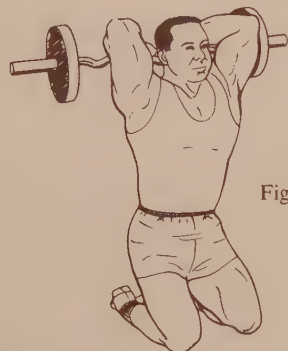


Fig. 2

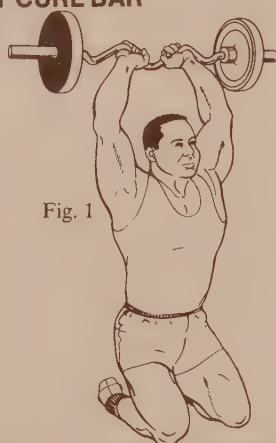


Fig. 1

▲ Kneeling Close Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Kneel down on the floor until your leg biceps and calves are touching with your back straight and head up. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

STANDING CLOSE GRIP EASY CURL BAR TRICEPS CURL

Triceps

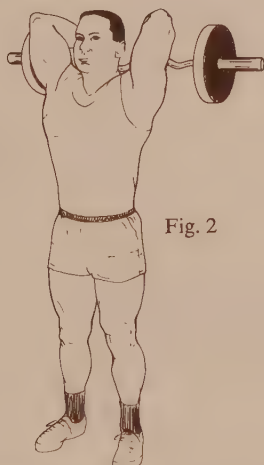


Fig. 2

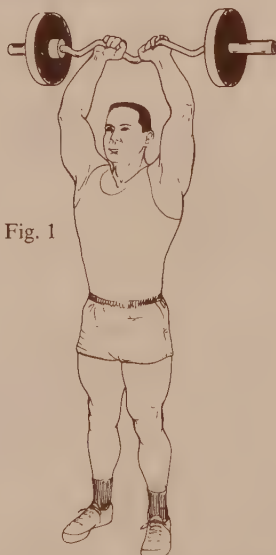


Fig. 1

▲ Standing Close Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Stand erect with your back straight, head up and feet about sixteen inches apart. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

INCLINE CLOSE GRIP EASY CURL BAR TRICEPS CURL

Triceps

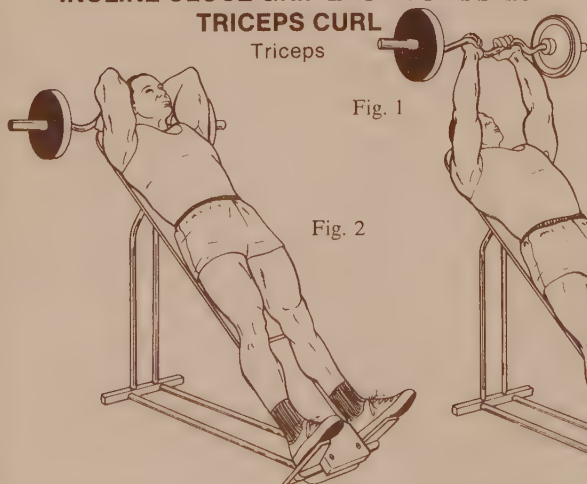


Fig. 2

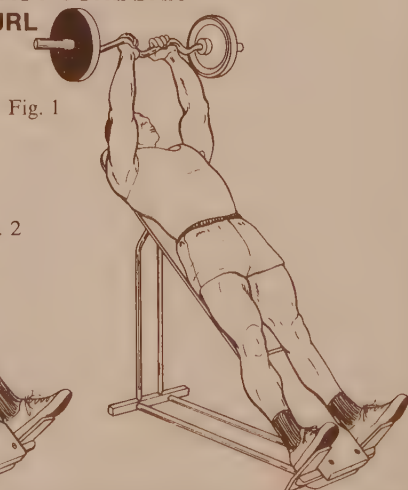


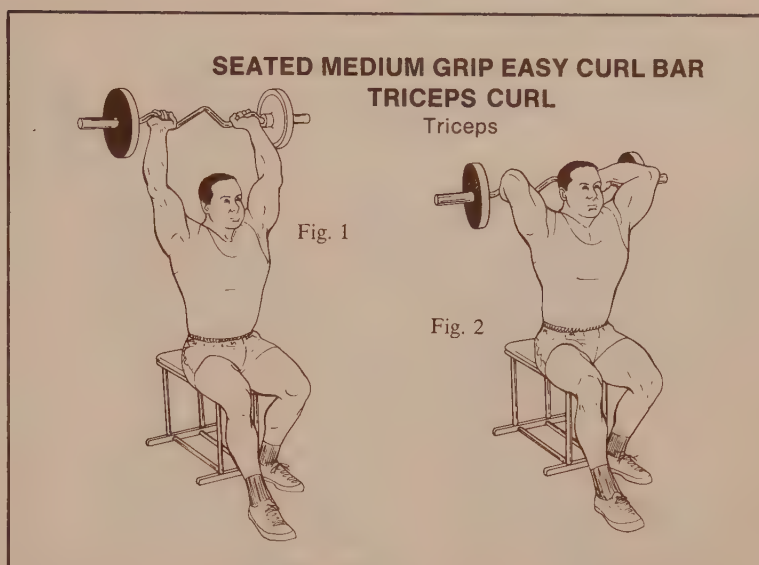
Fig. 1

▲ Incline Close Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Lie back on an incline bench with your head up and feet on the foot pads. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

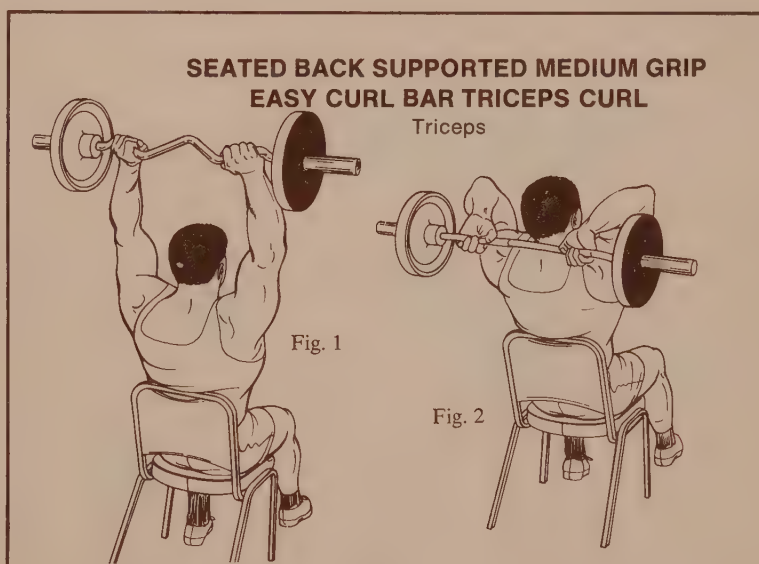
▲ Seated Medium Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the medium hand spacing curves. Sit at the end of a bench with your feet about sixteen inches apart and firmly planted on the floor. Keep your back straight and your head up. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



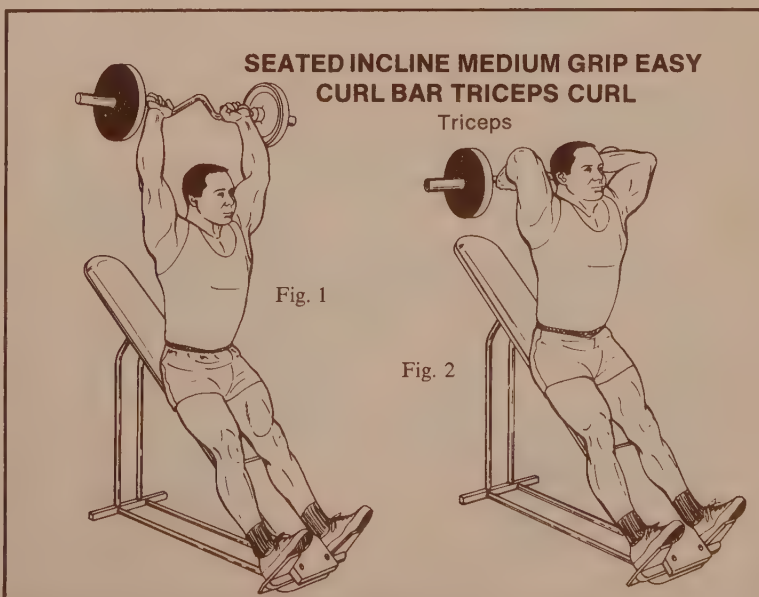
▲ Seated Back Supported Medium Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the medium hand spacing curves. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



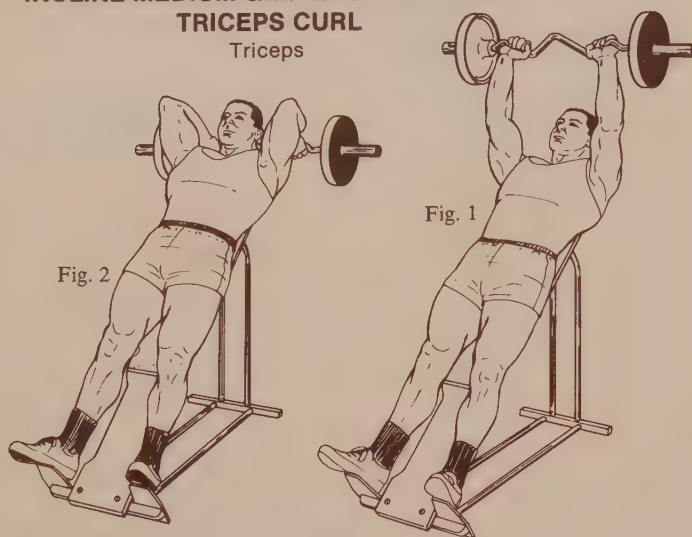
▲ Seated Incline Medium Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the medium hand spacing curves. Sit on an incline bench and place your feet on the foot pads. Keep your back straight and head up. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.



INCLINE MEDIUM GRIP EASY CURL BAR TRICEPS CURL

Triceps



▲ Incline Medium Grip Easy Curl Bar Triceps Curl

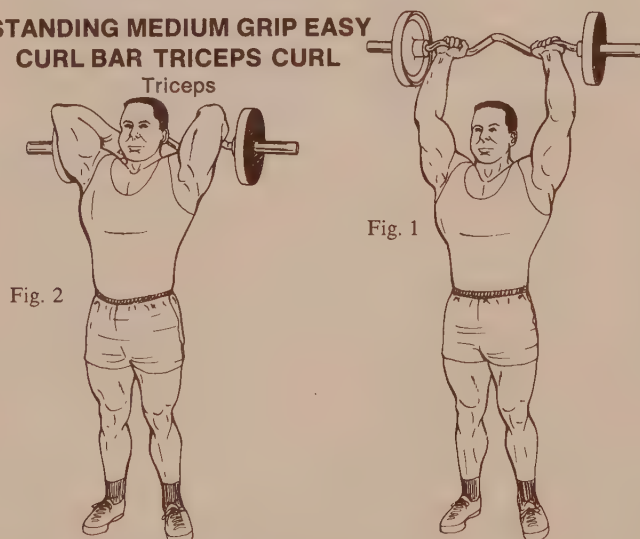
Hold an easy curl bar with both hands using the medium hand spacing curves. Lie back on an incline bench keeping your head up and feet on the foot pads. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

▲ Standing Medium Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the medium hand spacing curves. Stand erect with your back straight, head up and feet about sixteen inches apart. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

STANDING MEDIUM GRIP EASY CURL BAR TRICEPS CURL

Triceps

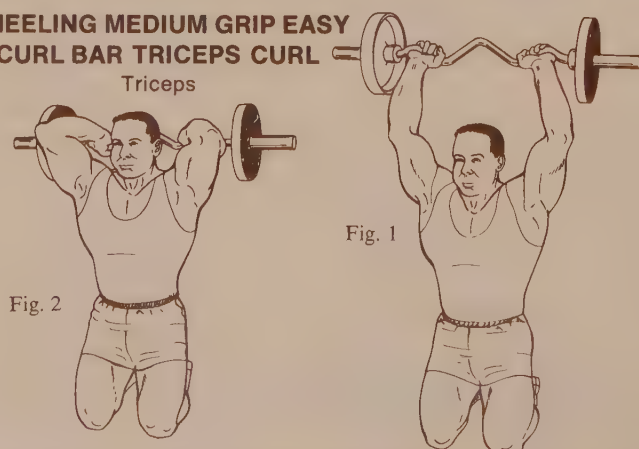


▲ Kneeling Medium Grip Easy Curl Bar Triceps Curl

Hold an easy curl bar with both hands using the medium hand spacing curves. Kneel on the floor and sit down until your leg biceps and calves touch. Keep your back straight and head up. Press the easy curl bar overhead to arm's length. Inhale and lower the bar straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered until your forearms and biceps touch. Press the bar back to starting position using the same path and exhale. Be sure to keep your upper arms as close to the sides of your head as possible during the exercise.

KNEELING MEDIUM GRIP EASY CURL BAR TRICEPS CURL

Triceps



▲ Lying Decline Close Grip Easy Curl Bar Triceps Curl to Chin

Hold an easy curl bar with both hands using

the closest hand spacing possible on the bar. Lie back on a decline bench with your head on the bench. Press the easy curl bar to arm's length keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your chin and your forearms and biceps should touch. Press the easy bar back to starting position, using the same path, and exhale.

▲ Lying Supine Close Grip Easy Curl Bar Triceps Curl to Chin

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Lie on a flat bench with your head over the end of the bench pointing downward toward the floor. Press the easy curl bar to arm's length keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your chin and your forearms and biceps should touch. Press the easy bar back to starting position, using the same path, and exhale.

▲ Lying Floor Close Grip Easy Curl Bar Triceps Curl to Chin

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Lie on the floor with your head down and chin pointing upward. Press the easy curl bar to arm's length, keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your chin and your forearms and biceps should touch. Press the easy bar back to starting position, using the same path, and exhale.

▲ Lying Decline Medium Grip Easy Curl Bar Triceps Curl to Chin

Triceps

Hold an easy curl bar with both hands using the medium hand spacing curves. Lie on a decline bench with your head on the bench and your chin pointing upward. Press the

LYING DECLINE CLOSE GRIP EASY CURL BAR TRICEPS CURL TO CHIN

Triceps

Fig. 1

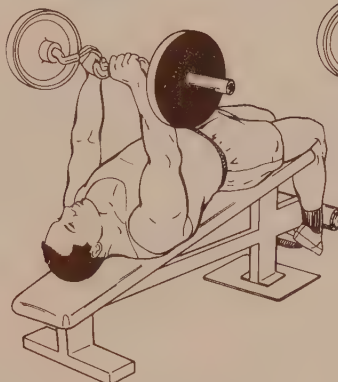
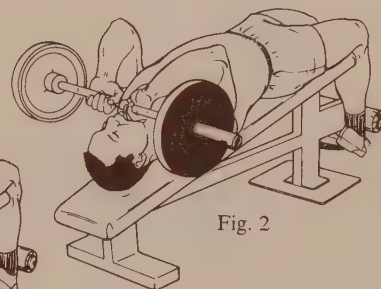


Fig. 2



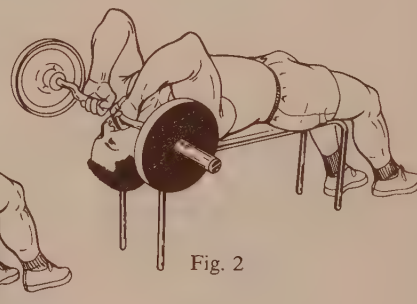
LYING SUPINE CLOSE GRIP EASY CURL BAR TRICEPS CURL TO CHIN

Triceps

Fig. 1



Fig. 2



LYING FLOOR CLOSE GRIP EASY CURL BAR TRICEPS CURL TO CHIN

Triceps

Fig. 1

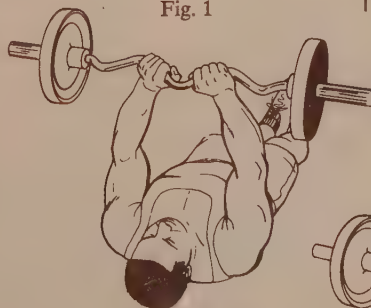
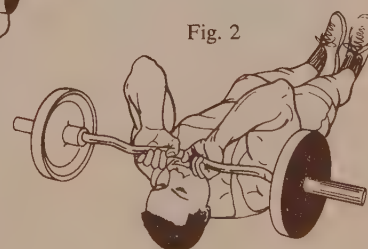


Fig. 2

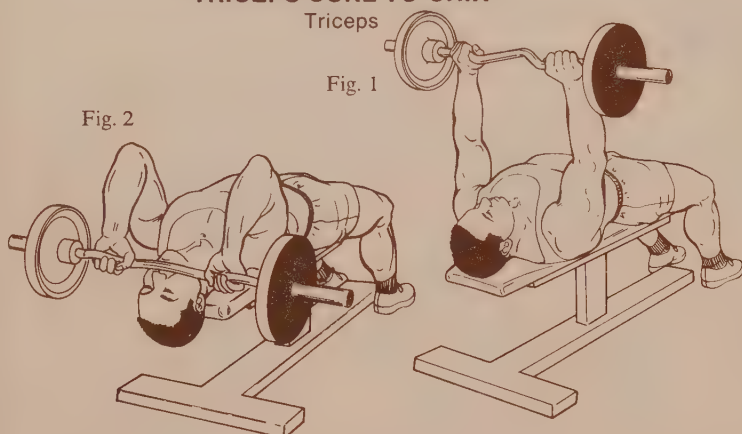


LYING SUPINE MEDIUM GRIP EASY CURL BAR TRICEPS CURL TO CHIN

Triceps

Fig. 1

Fig. 2

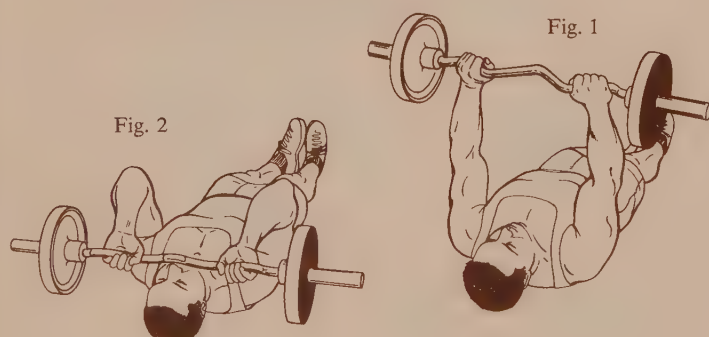


LYING FLOOR MEDIUM GRIP EASY CURL BAR TRICEPS CURL TO CHIN

Triceps

Fig. 1

Fig. 2

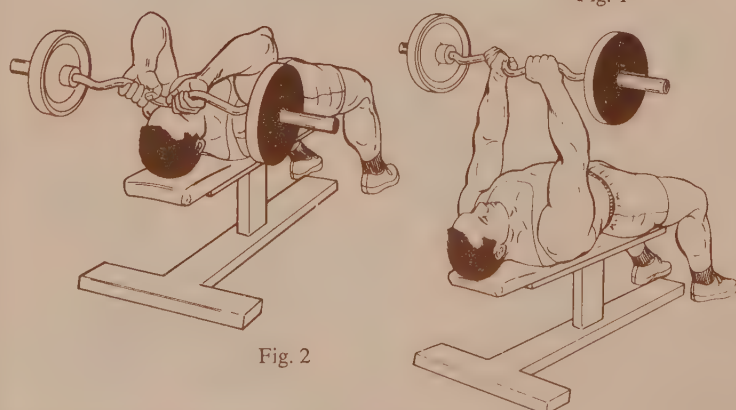


LYING SUPINE CLOSE GRIP EASY CURL BAR TRICEPS CURL TO FOREHEAD

Triceps

Fig. 1

Fig. 2



barbell to arm's length keeping it in line with your shoulders. Inhale and lower the easy bar straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your chin and your forearms and biceps should touch. Press the easy bar back to starting position using the same path and exhale.

▲ Lying Supine Medium Grip Easy Curl Bar Triceps Curl to Chin

Hold an easy curl bar with both hands using the medium hand spacing curves. Lie supine on a flat bench with your head off the bench and chin pointing upward. Press the easy curl bar to arm's length, keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your chin and your forearms and biceps should touch. Press the easy bar back to starting position, using the same path, and exhale.

▲ Lying Floor Medium Grip Easy Curl Bar Triceps Curl to Chin

Hold an easy curl bar with both hands using the medium hand spacing curves. Lie on the floor with your head down and chin pointing upward. Press the easy curl bar to arm's length, keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your chin and your forearms and biceps should touch. Press the easy bar back to starting position, using the same path, and exhale.

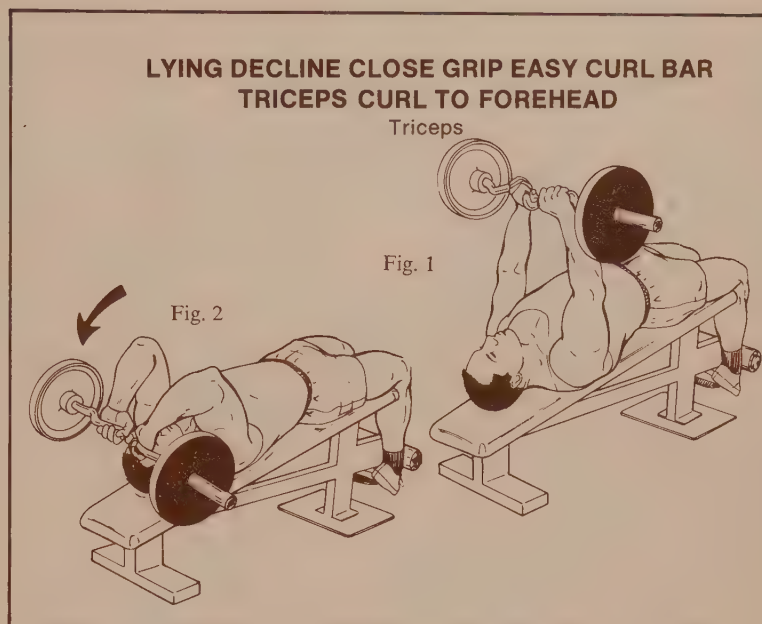
▲ Lying Supine Close Grip Easy Curl Bar Triceps Curl to Forehead

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Lie on a flat bench with your head down but your chin pointing upward. Press the easy curl bar to arm's length keeping it in line with your shoulders. Inhale and lower the easy bar straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms

vertical throughout the exercise. The easy bar should be lowered to your forehead and your forearms and biceps should touch. Press the easy bar back to starting position using the same path and exhale.

▲ Lying Decline Close Grip Easy Curl Bar Triceps Curl to Forehead

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Lie on a decline bench with your head on the bench but your chin pointing upward. Press the easy curl bar to arm's length keeping it in line with your shoulders. Inhale and lower the easy bar straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your forehead and your forearms and biceps should touch. Press the easy bar back to starting position using the same path and exhale.

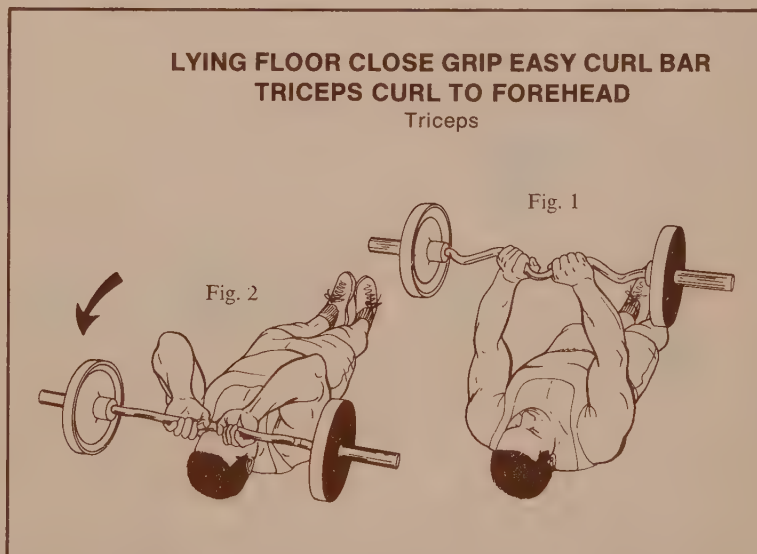


LYING FLOOR CLOSE GRIP EASY CURL BAR TRICEPS CURL TO FOREHEAD

Triceps

▲ Lying Floor Close Grip Easy Curl Bar Triceps Curl to Forehead

Hold an easy curl bar with both hands using the closest hand spacing possible on the bar. Lie on the floor with your head down but your chin pointing upward. Press the easy curl bar to arm's length keeping it in line with your shoulders. Inhale and lower the easy bar straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your forehead and your forearms and biceps should touch. Press the easy bar back to starting position using the same path and exhale.

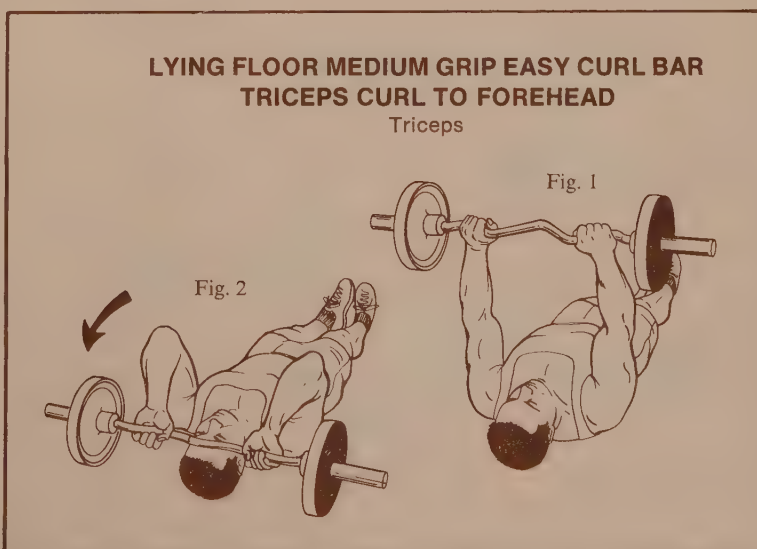


LYING FLOOR MEDIUM GRIP EASY CURL BAR TRICEPS CURL TO FOREHEAD

Triceps

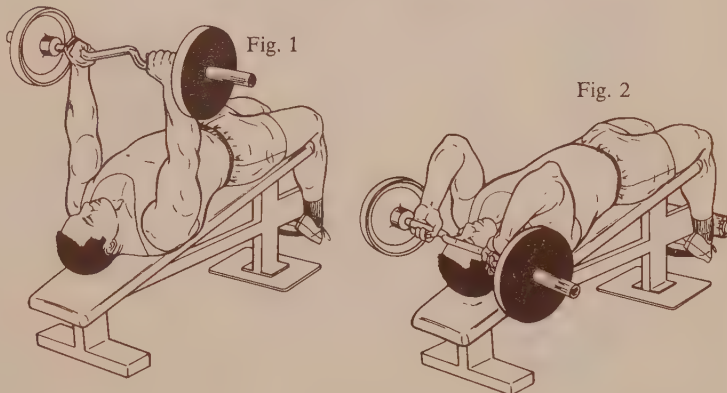
▲ Lying Floor Medium Grip Easy Curl Bar Triceps Curl to Forehead

Hold an easy curl bar with both hands using the medium hand spacing curves. Lie on the floor and press the easy bar to arm's length keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your forehead and your forearms and biceps should touch. Press the easy bar back to starting position using the same path and exhale.



LYING DECLINE MEDIUM GRIP EASY CURL BAR TRICEPS CURL TO FOREHEAD

Triceps

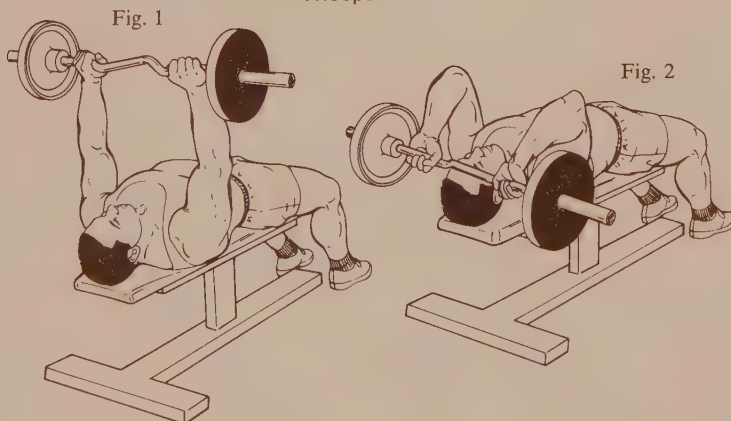


▲ Lying Decline Medium Grip Easy Curl Bar Triceps Curl to Forehead

Hold an easy curl bar with both hands using the medium hand spacing curves. Lie back on a decline bench with your head on the bench and your chin up. Press the easy bar to arm's length, keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your forehead and your forearms and biceps should touch. Press the easy bar back to starting position using the same path and exhale.

LYING SUPINE MEDIUM GRIP EASY CURL BAR TRICEPS CURL TO FOREHEAD

Triceps

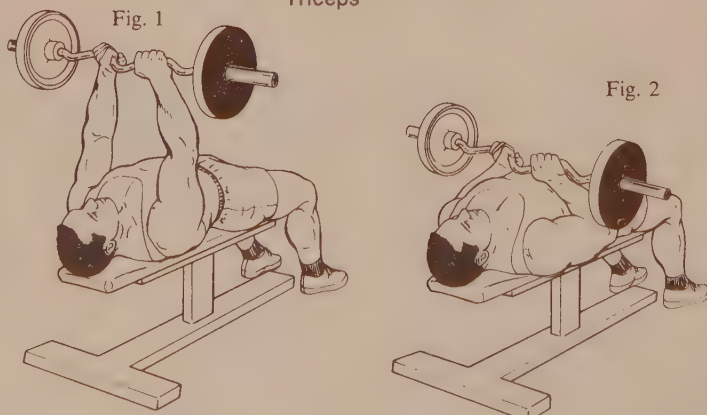


▲ Lying Supine Medium Grip Easy Curl Bar Triceps Curl to Forehead

Hold an easy curl bar with both hands using the medium hand spacing curves. Lie supine on a flat bench with your head on the bench and your chin up. Press the easy bar to arm's length, keeping it in line with your shoulders. Inhale and lower the bar straight down in a semicircular motion by bending your arms at your elbows but keeping your upper arms vertical throughout the exercise. The easy bar should be lowered to your forehead and your forearms and biceps should touch. Press the easy bar back to starting position using the same path and exhale.

LYING SUPINE CLOSE GRIP EASY CURL BAR TRICEPS PRESS

Triceps



▲ Lying Supine Close Grip Easy Curl Bar Triceps Press

Hold an easy curl bar with both hands using the closest hand spacing possible. Lie back on a flat bench in a supine position. Keep your head on the bench and raise the easy bar to arm's length above your shoulders, keeping the bar vertical with the floor. Inhale and keeping your upper arms in close, lower the bar straight down to your chest letting the bar touch in the middle of your pectorals. Press the bar back to starting position with the upper arms in close and exhale.

▲ Lying Decline Close Grip Easy Curl Bar Triceps Press

Triceps

Hold an easy curl bar with both hands using the closest hand spacing possible. Lie back on a decline bench. Keep your head on the

bench and raise the easy bar to arm's length above your shoulders, keeping the bar vertical with the floor. Inhale and keeping your upper arms in close, lower the bar straight down to your chest letting the bar touch at the lower part of your pectorals. Press the bar back to starting position with your upper arms in close and exhale.

▲ Incline Close Grip Easy Curl Bar Triceps Press

Hold an easy curl bar with both hands using the closest hand spacing possible. Lie back on an incline bench keeping your head on the bench and raise the easy bar to arm's length above your shoulders keeping the bar vertical with the floor. Inhale and keeping your upper arms in close, lower the bar straight down to your chest letting the bar touch in the middle of your pectorals. Press the bar back to starting position with your upper arms in close and exhale.

■ Standing Close Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. With your back straight and head up and feet about sixteen inches apart, press the easy bar overhead to arm's length. Inhale and lower the weight straight down behind your head in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the bar over your head using the shortest circle possible and place the easy bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.

■ Incline Close Grip Easy Curl Bar Triceps Curl and Press

Triceps

Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. Lie back on an incline bench and press the easy bar overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the bar over your head using the

INCLINE CLOSE GRIP EASY CURL BAR TRICEPS PRESS

Triceps

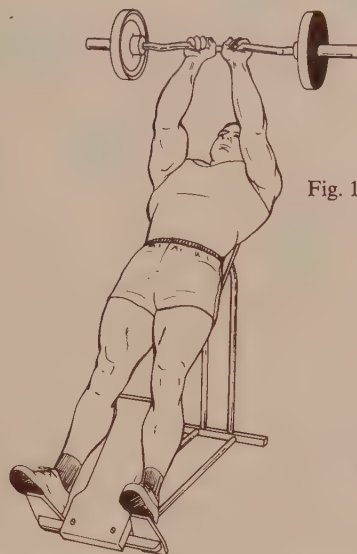


Fig. 1

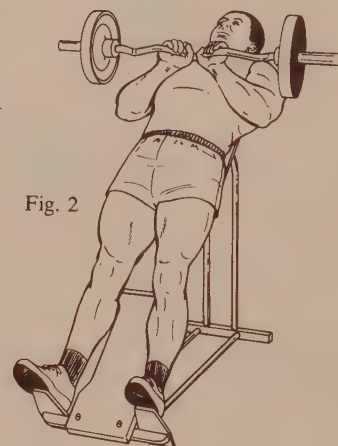


Fig. 2

STANDING CLOSE GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



Fig. 1

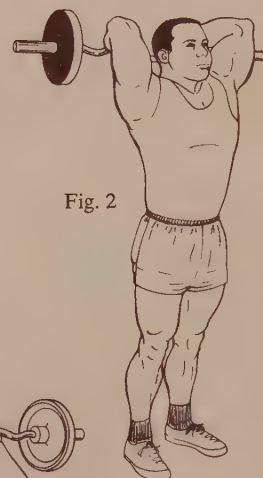


Fig. 2

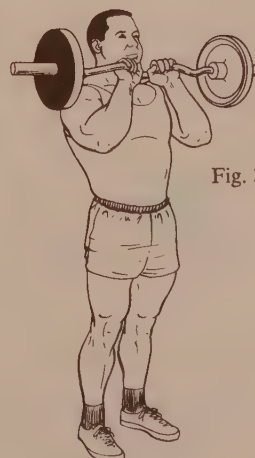
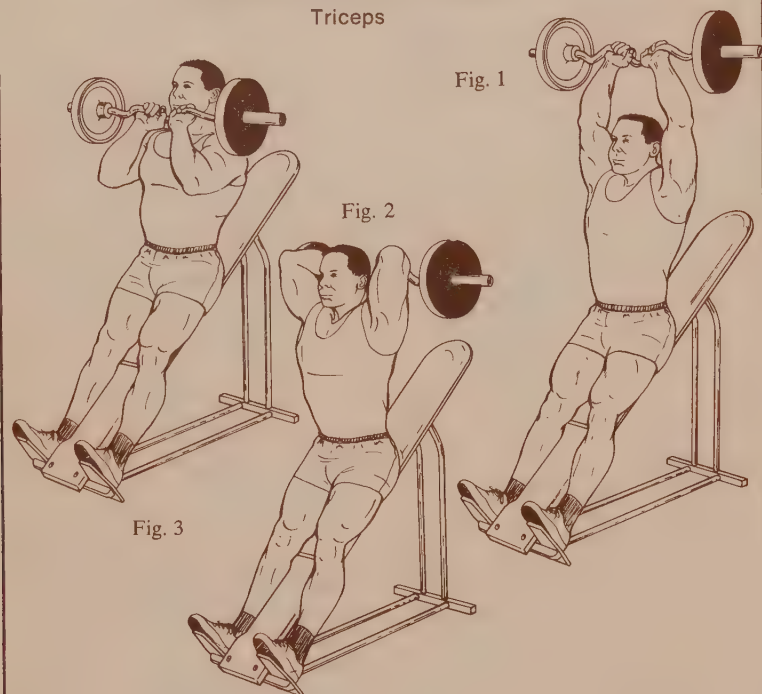


Fig. 3

Fig. 4

SEATED INCLINE CLOSE GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



shortest circle possible and place the easy bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.

■ Seated Incline Close Grip Easy Curl Bar Triceps Curl and Press

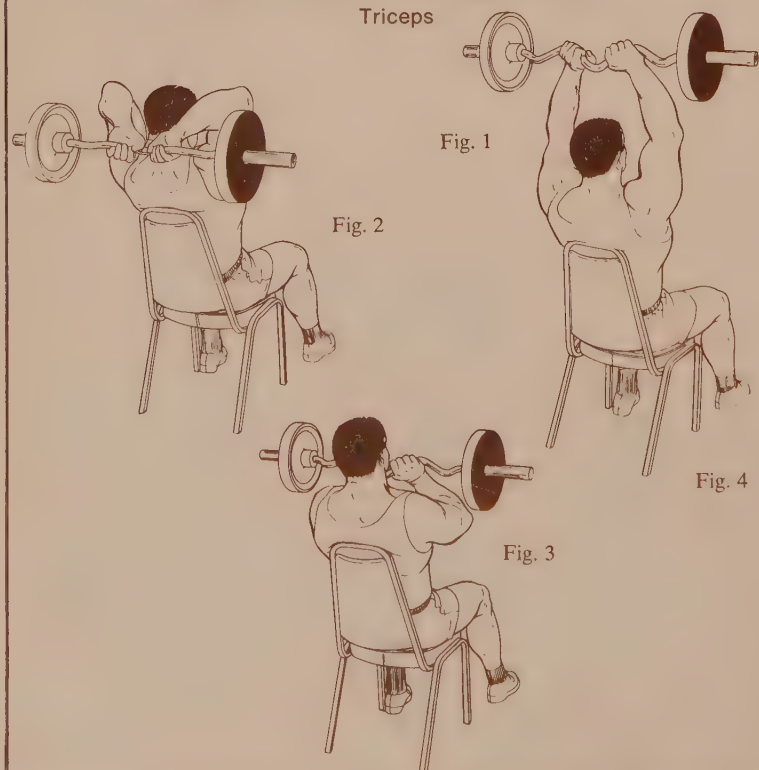
Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. Sit on an incline bench and place your feet on the foot pads. Keep your back straight and head up. Press the easy bar overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the bar over your head using the shortest circle possible and place the easy bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.

■ Seated Back Supported Close Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. Sit on a chair with your back against the support. Keep your head up and feet planted firmly on the floor. Press the easy bar overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the bar over your head using the shortest circle possible and place the easy bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.

SEATED BACK SUPPORTED CLOSE GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



■ Seated Close Grip Easy Curl Bar Triceps Curl and Press

Triceps

Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. Sit on the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Press the easy bar overhead to arm's length. Inhale and lower the weight straight

down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the bar over your head using the shortest circle possible and place the easy bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.

■ Kneeling Close Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. Kneel down on the floor until your leg biceps and calves touch. Keep your back straight and head up. Press the easy bar overhead to arm's length. Inhale and lower the weight straight down behind your head in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch. Now pull the bar over your head using the shortest circle possible and place the easy bar on your upper chest with your elbows at your sides. Immediately press the bar back to starting position and exhale.

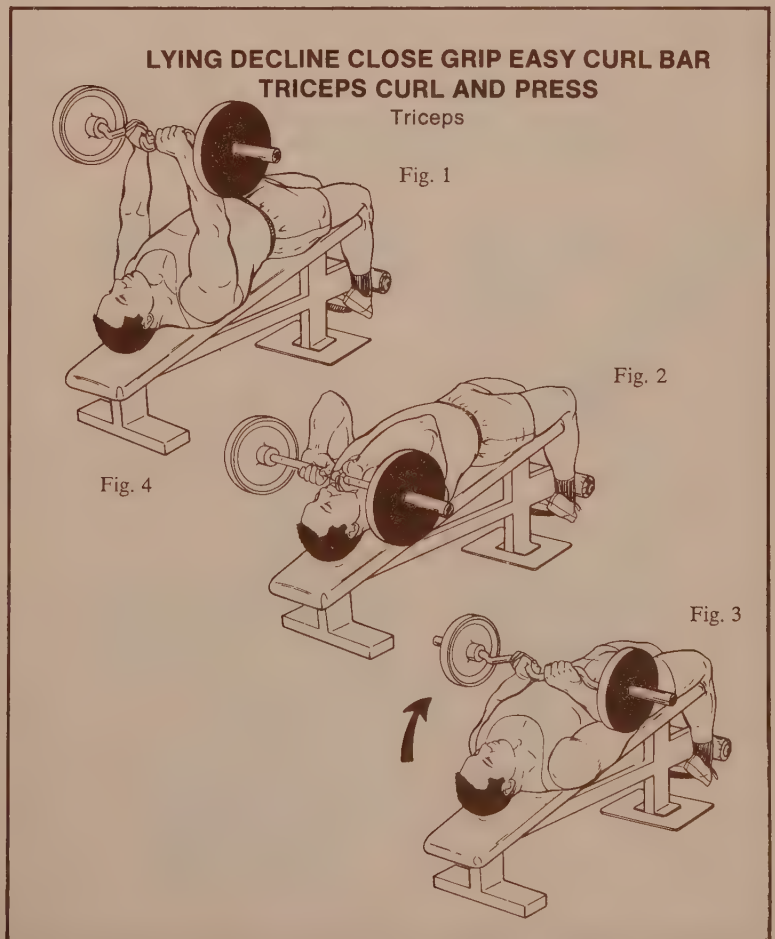
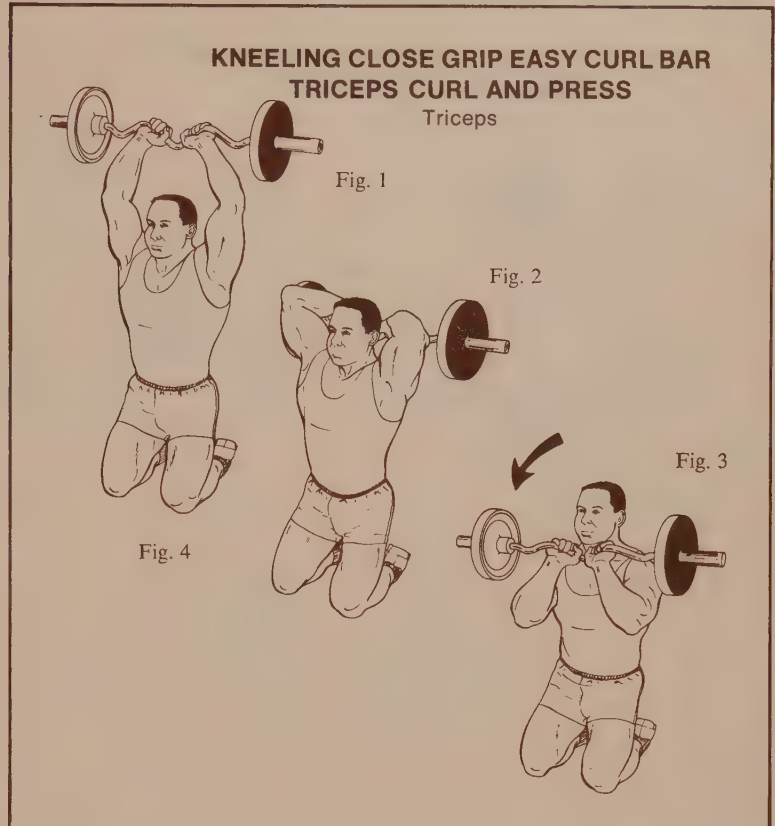
▲ Lying Decline Close Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. Lie back on a decline bench and keep your head down. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch and the bar is close to your chin. Now pull the easy bar over to your chest using the shortest circle possible until your upper arms are in close to your sides. Immediately press the easy bar to starting position and exhale.

▲ Lying Supine Close Grip Easy Curl Bar Triceps Curl and Press

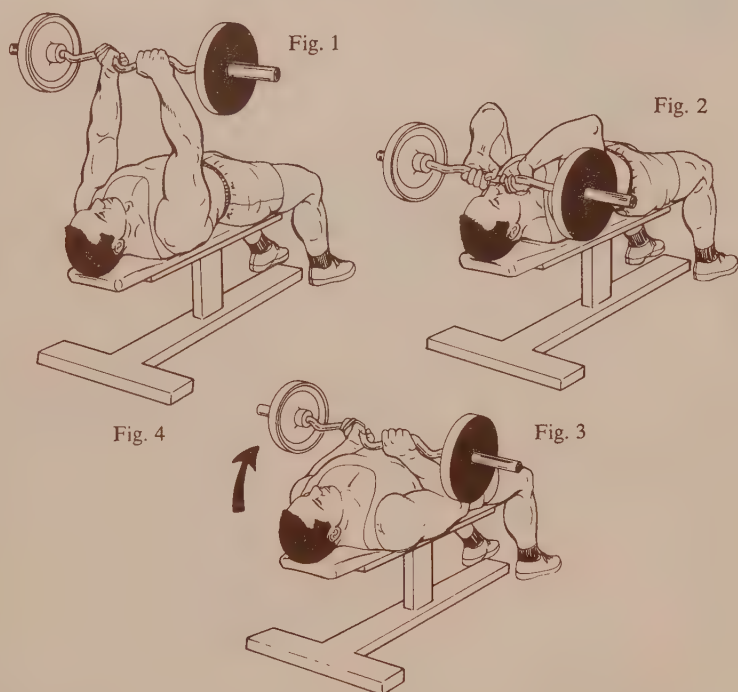
Triceps

Hold an easy curl bar with both hands using a palms down grip and the closest hand spacing possible on the bar. Lie back on a



LYING SUPINE CLOSE GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



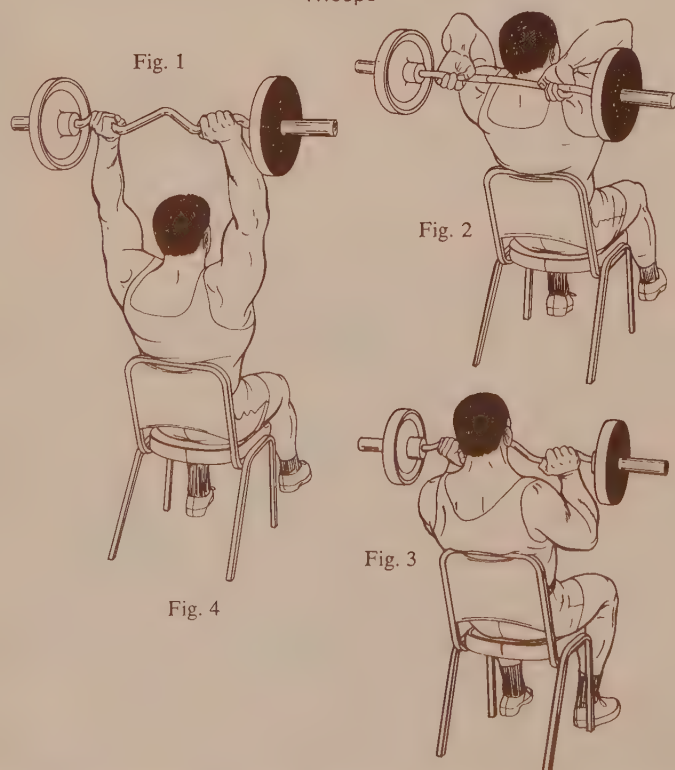
flat bench and have your head off the end of the bench and pointing towards the floor. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered until your forearms and biceps touch and the bar is close to your chin. Now pull the easy bar over to your chest using the shortest circle possible until your upper arms are in close to your sides. Immediately press the easy bar to starting position and exhale.

■ Seated Back Supported Medium Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Sit on a bench or chair that has a support for your upper back. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered behind your head until your forearms and biceps touch. Now pull the easy bar over your head and place it on your upper chest with your upper arms in close to your sides. Use the shortest circle possible to get the bar over your head. Immediately press the easy bar to starting position and exhale.

SEATED BACK SUPPORTED MEDIUM GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



■ Kneeling Medium Grip Easy Curl Bar Triceps Curl and Press

Triceps

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Kneel down on the floor until your leg biceps and calves touch. Keep your back straight and head up. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered behind your head until your forearms and biceps touch. Now pull the easy bar over your head and place it on your upper chest with your upper arms in close to your sides. Use the shortest circle possible to get the bar over your head. Immediately press the easy bar to starting position and exhale.

■ Standing Medium Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Stand erect with your back straight, head up and feet about sixteen inches apart. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered behind your head until your forearms and biceps touch. Now pull the easy bar over your head and place it on your upper chest with your upper arms in close to your sides. Use the shortest circle possible to get the bar over your head. Immediately press the easy bar to starting position and exhale.

■ Incline Medium Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Lie back on an incline bench and place your feet on the foot pads. Keep your head up and off the bench. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered behind your head until your forearms and biceps touch. Now pull the easy bar over your head and place it on your upper chest with your upper arms in close to your sides. Use the shortest circle possible to get the bar over your head. Immediately press the easy bar to starting position and exhale.

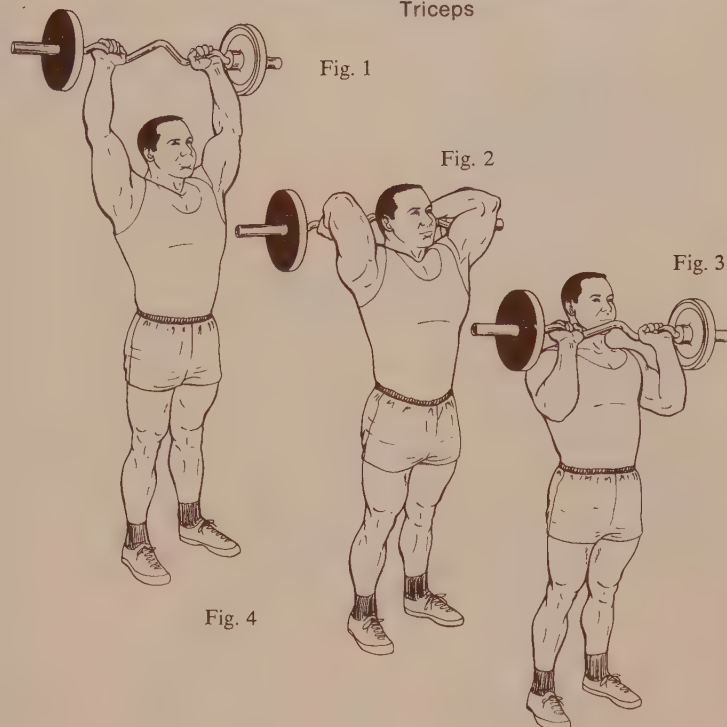
■ Seated Incline Medium Grip Easy Curl Bar Triceps Curl and Press

Triceps

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Sit on an incline bench with your back straight, head up and feet on the foot pads. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semi-circular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered behind your head until your forearms and biceps touch. Now pull the easy bar over your head and place it on your upper chest with your upper arms in close to your sides. Use the shortest circle possible to get the bar over your head. Immediately press the easy bar to starting position and exhale.

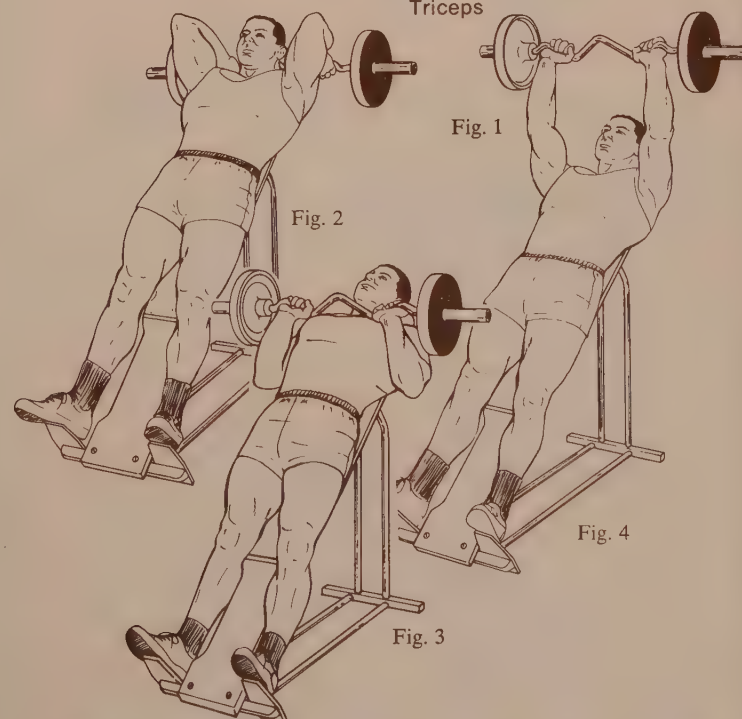
STANDING MEDIUM GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



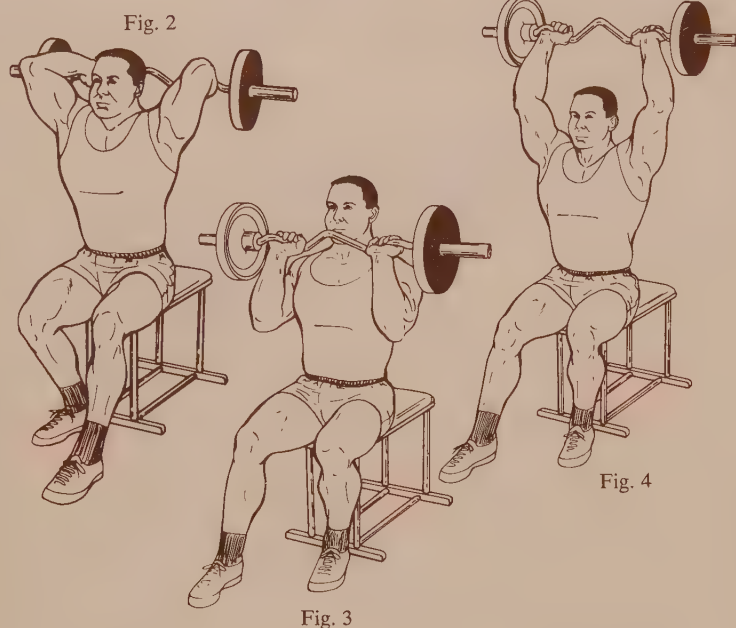
INCLINE MEDIUM GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



SEATED MEDIUM GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



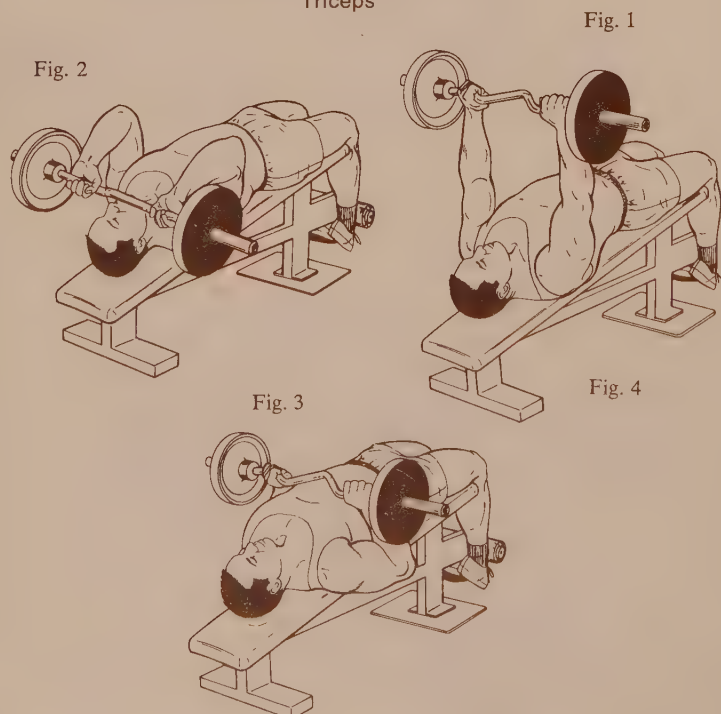
your upper arms in close to your sides. Use the shortest circle possible to get the bar over your head. Immediately press the easy bar to starting position and exhale.

■ Seated Medium Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The barbell should be lowered behind your head until your forearms and biceps touch. Now pull the easy bar over your head and place it on your upper chest with your upper arms in close to your sides. Use the shortest circle possible to get the bar over your head. Immediately press the easy bar to starting position and exhale.

LYING DECLINE MEDIUM GRIP EASY CURL BAR TRICEPS CURL AND PRESS

Triceps



▲ Lying Decline Medium Grip Easy Curl Bar Triceps Curl and Press

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Lie back on a decline bench and keep your head on the bench with your chin pointing upward. Press the easy bar overhead to arm's length above your shoulders. Inhale and lower the weight straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The easy bar should be lowered until your forearms and biceps touch and the bar is close to your chin. Now pull the bar over and place it on your chest below the nipples of your pectorals with your upper arms in close to your sides. Use the shortest circle possible to get the bar to your chest. Immediately press the easy bar to starting position and exhale.

▲ Lying Supine Medium Grip Easy Curl Bar Triceps Curl and Press

Triceps

Hold an easy curl bar with both hands using a palms down medium spaced grip on the bar. Lie back on a flat bench with your head over the end of the bench pointing down toward the floor. Press the easy bar overhead to arm's length above your

shoulders. Inhale and lower the weight straight down in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical. The easy bar should be lowered until your forearms and biceps touch and the bar is close to your chin. Now pull the bar over and place it on your chest below the nipples of your pectorals with your upper arms in close to your sides. Use the shortest circle possible to get the bar to your chest. Immediately press the easy bar to starting position and exhale.

▲ Standing Close Grip Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Grasp the lat machine bar with both hands using a palms down grip about eight inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

▲ Standing Medium Grip Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Grasp the lat machine bar with both hands using a palms down grip about fourteen inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

■ Standing Wide Grip Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and

STANDING CLOSE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

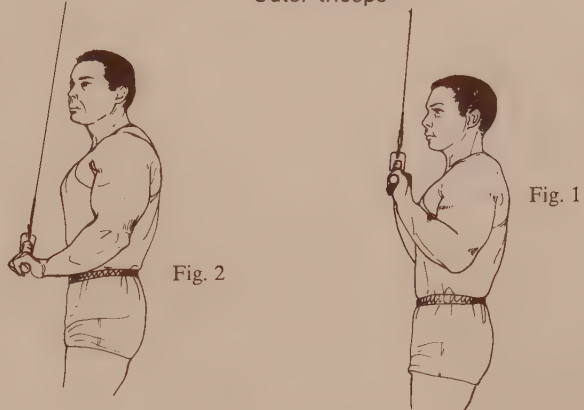


Fig. 2

Fig. 1

STANDING MEDIUM GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

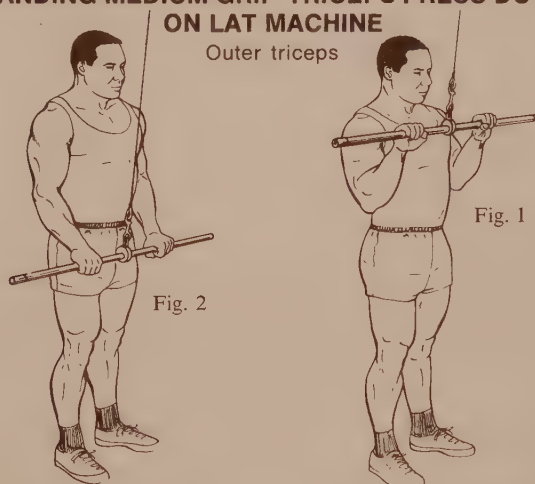


Fig. 2

Fig. 1

STANDING WIDE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

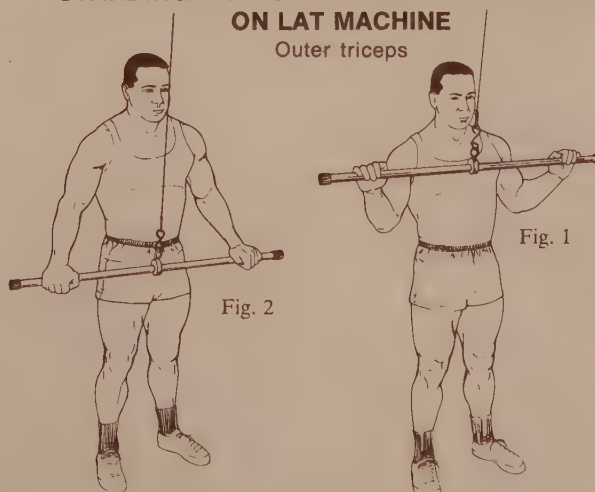


Fig. 2

Fig. 1

KNEELING CLOSE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



Fig. 1

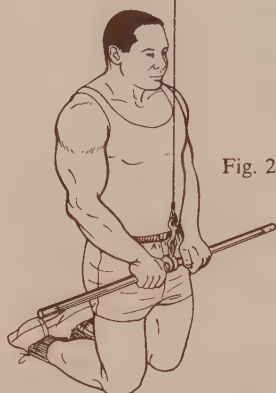


Fig. 2

your back straight. Grasp the lat machine bar with both hands using a palms down grip about twenty-four inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

▲ Kneeling Close Grip Triceps Press Down on Lat Machine

Stand in front of a lat machine and grasp the bar with both hands using a palms down grip about eight inches apart. Kneel down on your knees and keep your back straight and head up as you bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

KNEELING MEDIUM GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



Fig. 1

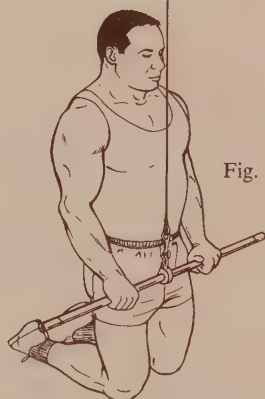


Fig. 2

▲ Kneeling Medium Grip Triceps Press Down on Lat Machine

Stand in front of a lat machine and grasp the bar with both hands using a palms down grip about fourteen inches apart. Kneel down on your knees and keep your back straight and head up as you bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

KNEELING WIDE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



Fig. 1



Fig. 2

▲ Kneeling Wide Grip Triceps Press Down on Lat Machine

Stand in front of a lat machine and grasp

the bar with both hands using a palms down grip about twenty-four inches apart. Kneel down on your knees and keep your back straight and head up as you bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

■ Standing Close Grip Weight Supported Triceps Press Down on Lat Machine

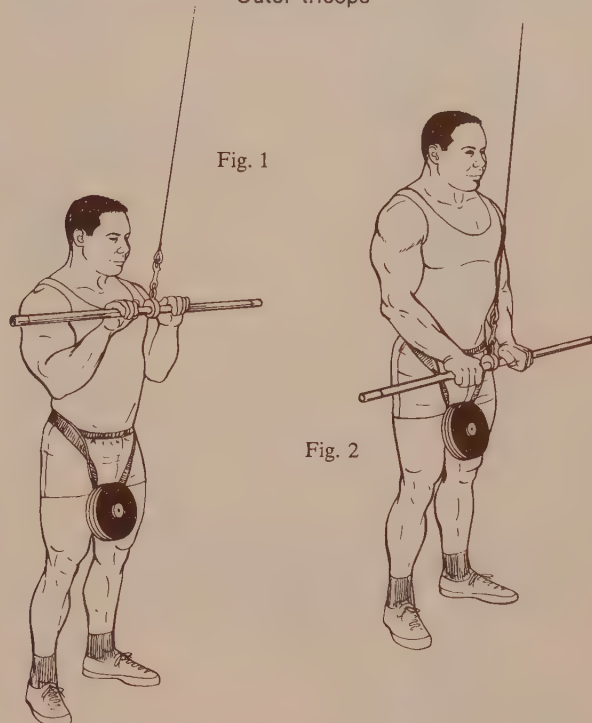
Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Use a weight support belt or a piece of rope to attach a weight from your waist to give you more support. Grasp the lat machine bar with both hands using a palms down grip about eight inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

■ Standing Medium Grip Weight Supported Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Use a weight support belt or a piece of rope to attach a weight from your waist to give you more support. Grasp the lat machine bar with both hands using a palms down grip about fourteen inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

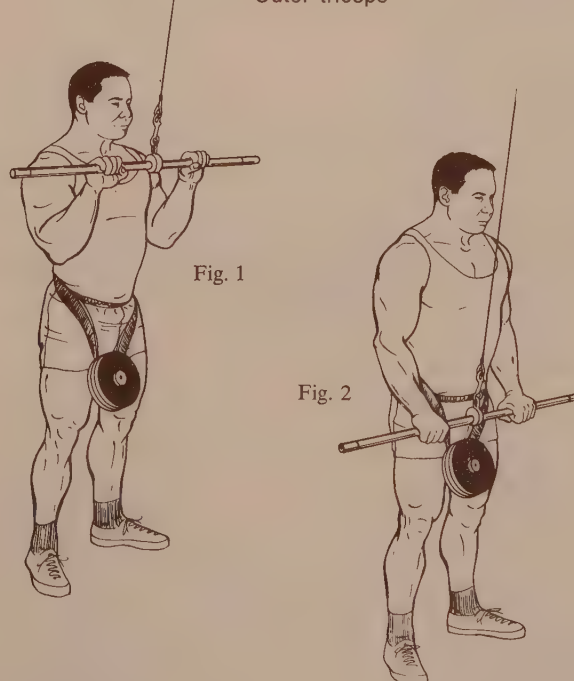
STANDING CLOSE GRIP WEIGHT SUPPORTED TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



STANDING MEDIUM GRIP WEIGHT SUPPORTED TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



STANDING WIDE GRIP WEIGHT SUPPORTED TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

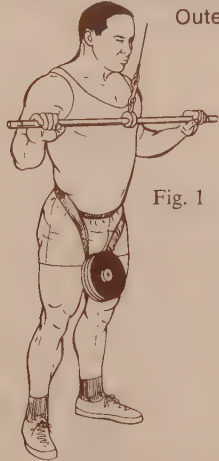


Fig. 1

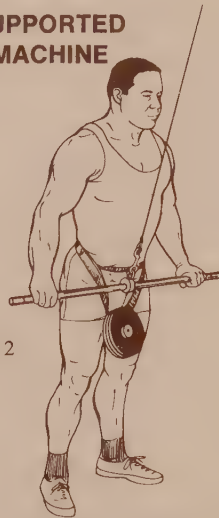


Fig. 2

■ Standing Wide Grip Weight Supported Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Use a weight support belt or a piece of rope to attach a weight from your waist to give you more support. Grasp the lat machine bar with both hands using a palms down grip about twenty-four inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semi-circular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

STANDING REVERSE CLOSE GRIP WEIGHT SUPPORTED TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

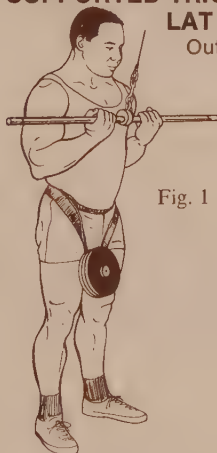


Fig. 1

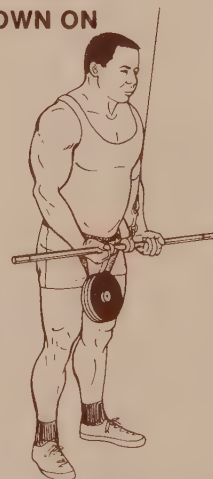


Fig. 2

■ Standing Reverse Close Grip Weight Supported Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Use a weight support belt or a piece of rope to attach a weight from your waist to give you more support. Grasp the lat machine bar with both hands using a palms up grip about eight inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

STANDING REVERSE MEDIUM GRIP WEIGHT SUPPORTED TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

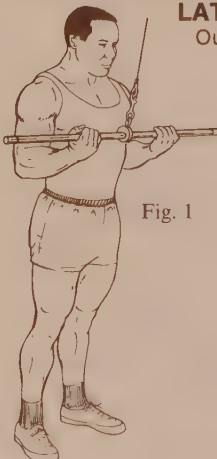


Fig. 1



Fig. 2

■ Standing Reverse Medium Grip Weight Supported Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Use a weight support belt or a piece of rope to attach a weight from your waist to give you more support. Grasp the lat machine bar with both hands using a palms up grip about fourteen inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion

to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

■ Standing Reverse Wide Grip Weight Supported Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Use a weight support belt or a piece of rope to attach a weight from your waist to give you more support. Grasp the lat machine bar with both hands using a palms up grip about twenty-four inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

▲ Standing Reverse Close Grip Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Grasp the lat machine bar with both hands using a palms up grip about eight inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

▲ Standing Reverse Medium Grip Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Grasp the lat machine bar with both hands using a palms up grip about fourteen inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as

STANDING REVERSE WIDE GRIP WEIGHT SUPPORTED TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

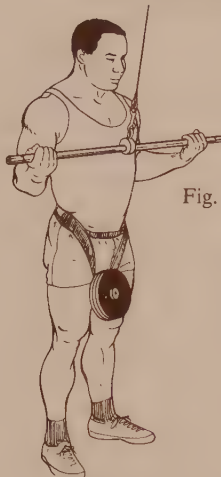


Fig. 1



Fig. 2

STANDING REVERSE CLOSE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

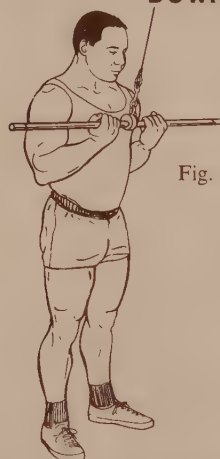


Fig. 1



Fig. 2

STANDING REVERSE MEDIUM GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



Fig. 1



Fig. 2

STANDING REVERSE WIDE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

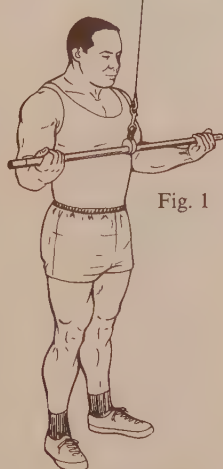


Fig. 1



Fig. 2

you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

■ Standing Reverse Wide Grip Triceps Press Down on Lat Machine

Stand erect in front of a lat machine with your feet about sixteen inches apart and your back straight. Grasp the lat machine bar with both hands using a palms up grip about twenty-four inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

KNEELING REVERSE CLOSE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

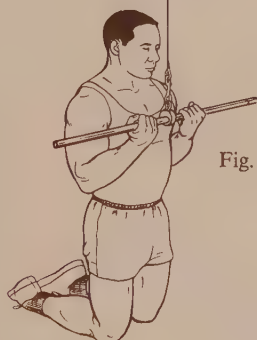


Fig. 1

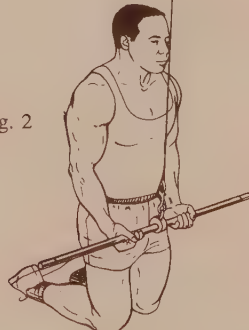


Fig. 2

▲ Kneeling Reverse Close Grip Triceps Press Down on Lat Machine

Stand in front of a lat machine and grasp the bar with both hands using a palms up grip about eight inches apart. Kneel down on your knees and keep your back straight and head up as you bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

KNEELING REVERSE MEDIUM GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



Fig. 1

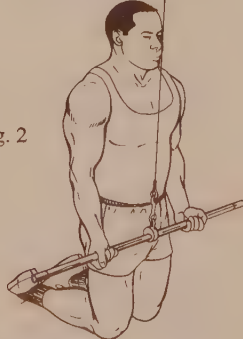


Fig. 2

▲ Kneeling Reverse Medium Grip Triceps Press Down on Lat Machine

Stand in front of a lat machine and grasp the bar with both hands using a palms up grip about fourteen inches apart. Kneel down on your knees and keep your back straight and head up as you bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure

to keep tension on your triceps while pressing down and returning to starting position.

■ Kneeling Reverse Wide Grip Triceps Press Down on Lat Machine

Stand in front of a lat machine and grasp the bar with both hands using a palms up grip about twenty-four inches apart. Kneel down on your knees and keep your back straight and head up as you bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semi-circular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

KNEELING REVERSE WIDE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps



Fig. 1

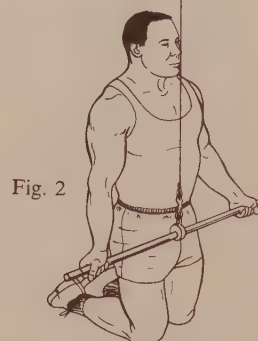


Fig. 2

▲ Incline Face Forward Reverse Close Grip Triceps Press Down on Lat Machine

Position an incline bench in front of a lat machine as shown in Illustration #1. Lie face forward on the incline bench and grasp the lat machine bar with both hands using a palms facing up grip about eight inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

INCLINE FACE FORWARD REVERSE CLOSE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

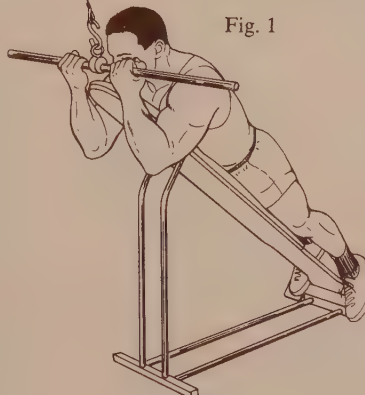


Fig. 1

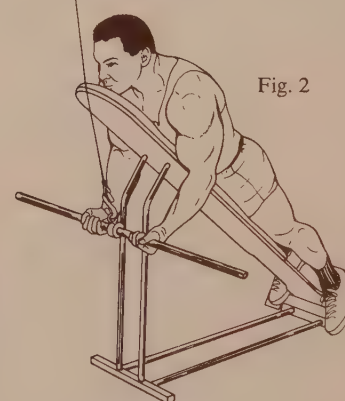


Fig. 2

▲ Incline Face Forward Reverse Medium Grip Triceps Press Down on Lat Machine

Position an incline bench in front of a lat machine as shown in Illustration #1. Lie face forward on the incline bench and grasp the lat machine bar with both hands using a palms facing up grip about fourteen inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

INCLINE FACE FORWARD REVERSE MEDIUM GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

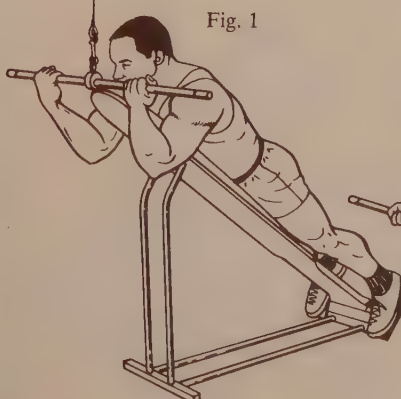


Fig. 1

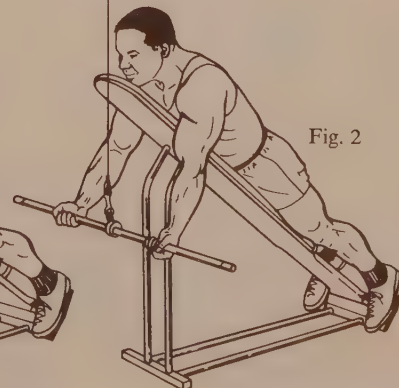
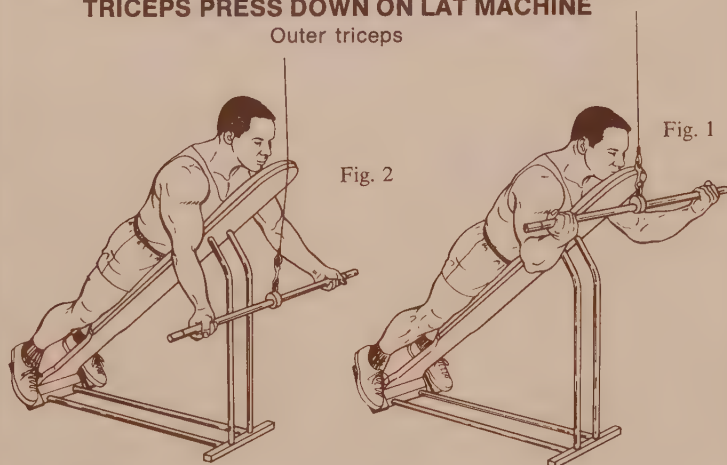


Fig. 2

INCLINE FACE FORWARD REVERSE WIDE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

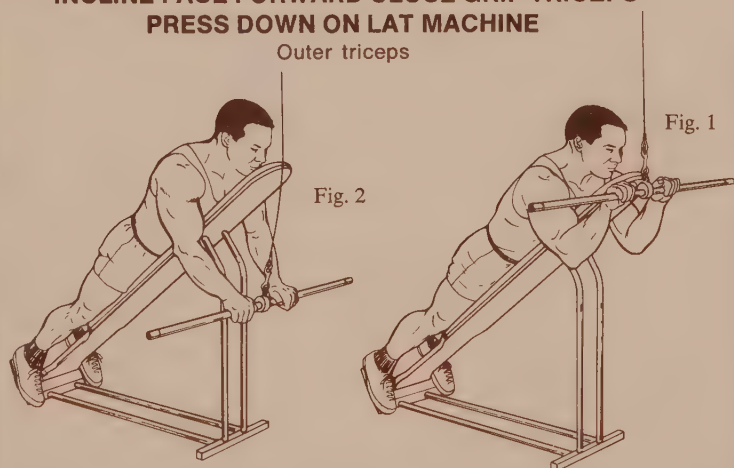


■ Incline Face Forward Reverse Wide Grip Triceps Press Down on Lat Machine

Position an incline bench in front of a lat machine as shown in Illustration #1. Lie face forward on the incline bench and grasp the lat machine bar with both hands using a palms facing up grip about twenty-four inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

INCLINE FACE FORWARD CLOSE GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

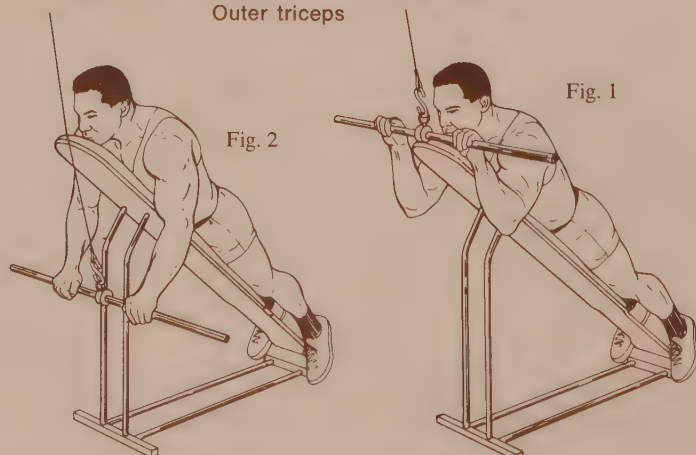


▲ Incline Face Forward Close Grip Triceps Press Down on Lat Machine

Position an incline bench in front of a lat machine as shown in Illustration #1. Lie face forward on the incline bench and grasp the lat machine bar with both hands using a palms down grip about eight inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

INCLINE FACE FORWARD MEDIUM GRIP TRICEPS PRESS DOWN ON LAT MACHINE

Outer triceps

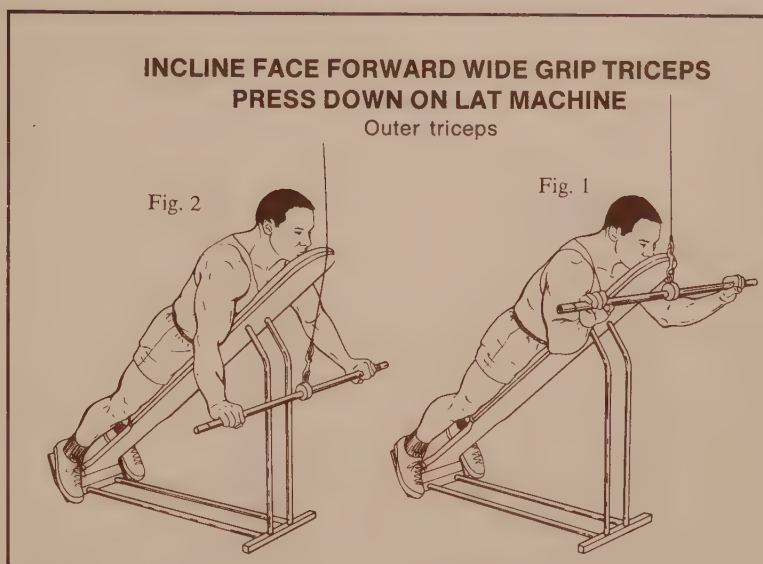


▲ Incline Face Forward Medium Grip Triceps Press Down on Lat Machine

Position an incline bench in front of a lat machine as shown in Illustration #1. Lie face forward on the incline bench and grasp the lat machine bar with both hands using a palms down grip about fourteen inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.

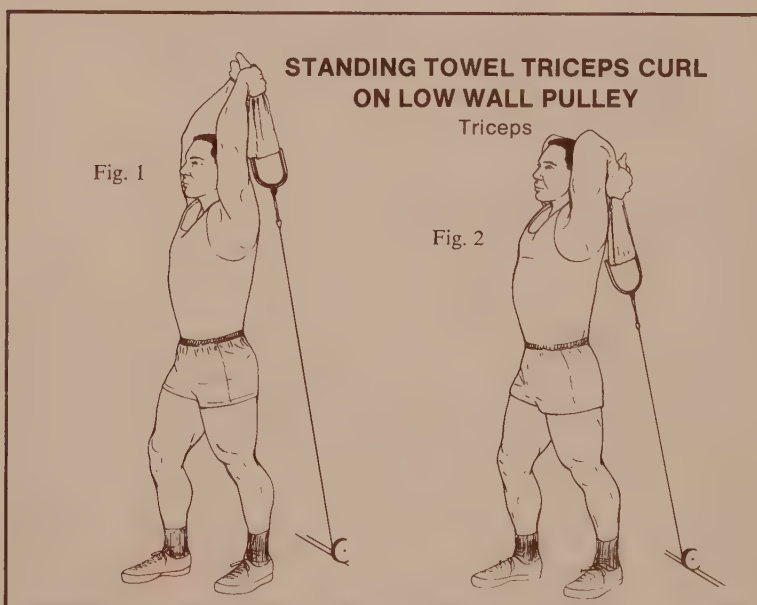
■ Incline Face Forward Wide Grip Triceps Press Down on Lat Machine

Position an incline bench in front of a lat machine as shown in Illustration #1. Lie face forward on the incline bench and grasp the lat machine bar with both hands using a palms down grip about twenty-four inches apart. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the bar down in a semi-circular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Be sure to keep tension on your triceps while pressing down and returning to starting position.



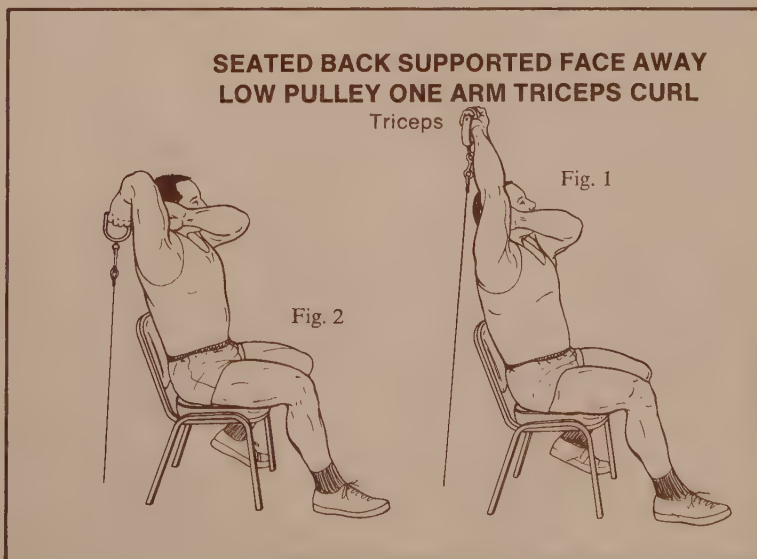
▲ Standing Towel Triceps Curl on Low Wall Pulley

Place a towel or a piece of rope around the lower pulley cable handle of a wall pulley. Grasp the ends of the towel with both hands and turn facing away from the machine. Stand back far enough to enable your arms to raise the weight stack when they are straight overhead with your elbows locked. Inhale and lower your hands behind your head, keeping your upper arms close to your head, until your biceps and forearms touch. Return to starting position overhead and exhale.



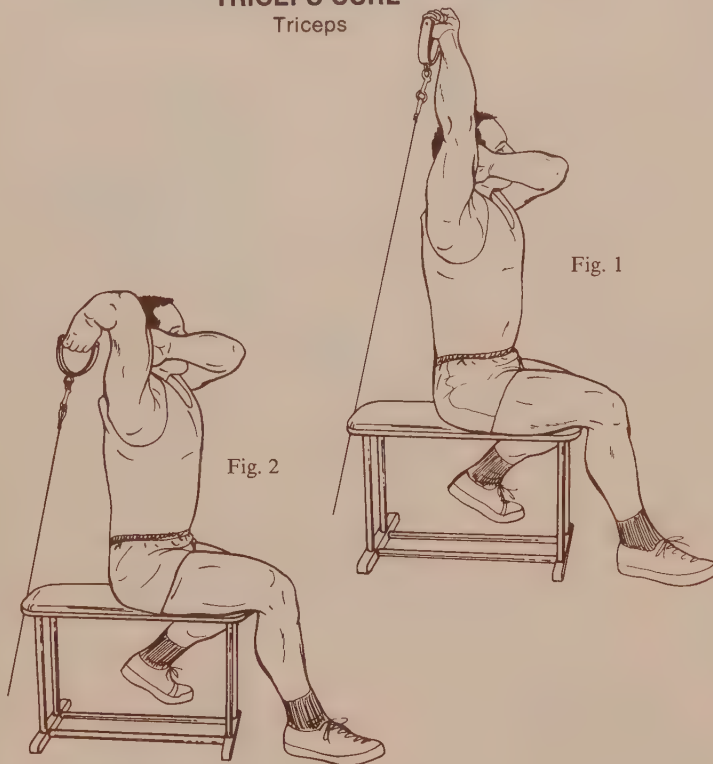
▲ Seated Back Supported Face Away Low Pulley One Arm Triceps Curl

Place a chair in front of a wall pulley with the back of the chair closest to the machine. Have the chair far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Turn away from the machine and grasp the right lower pulley cable handle with your right hand. Step forward and sit on the chair with your back against the support, your head up and feet planted firmly on the floor. Raise your right arm directly over your right shoulder to arm's length. Keep your upper arm vertical as you inhale and bend your arm at the elbow letting your lower arm back and down in a semicircular motion until your right forearm and biceps touch. Press the weight stack to starting position in the same semicircular motion and exhale. Do the prescribed number of repetitions on the right side and then change positions, doing the same number



SEATED FACE AWAY LOW PULLEY ONE ARM TRICEPS CURL

Triceps



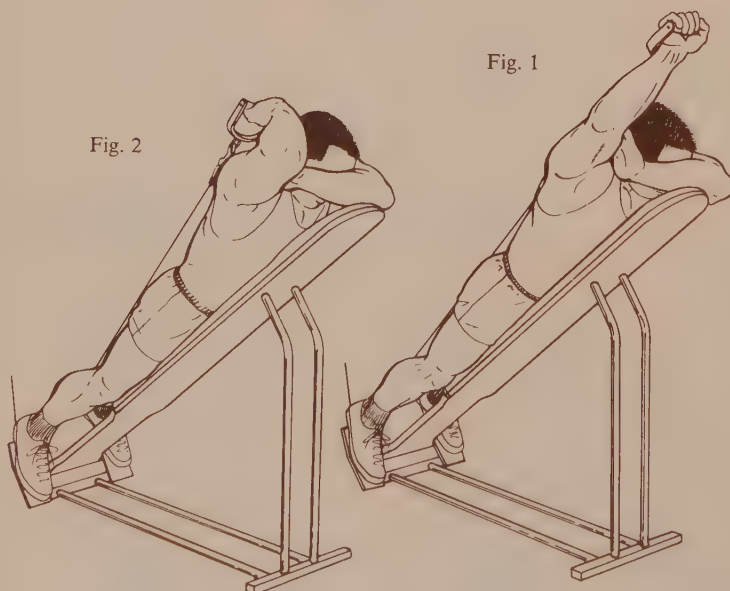
of repetitions on the left side. Be sure your upper arm remains in a vertical position throughout the exercise.

▲ Seated Face Away Low Pulley One Arm Triceps Curl

Place a flat bench long ways in front of a wall pulley. Have the bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Turn away from the machine and grasp the right lower pulley cable handle with your right hand. Step forward and sit on the bench facing away from the machine. Raise your right arm directly over your right shoulder to arm's length. Keep your upper arm vertical as you inhale and bend your arm at your elbow letting your lower arm back and down in a semicircular motion until your right forearm and biceps touch. Press the weight stack to starting position in the same semicircular motion and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side. Be sure your arm remains in a vertical position throughout the exercise.

INCLINE FACE AWAY LOW PULLEY ONE ARM TRICEPS CURL

Triceps



▲ Incline Face Away Low Pulley One Arm Triceps Curl

Place an incline bench in front of a wall pulley with the low end of the bench closest to the machine. Have the incline bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Turn away from the machine and grasp the right lower pulley cable handle with your right hand. Step forward and lie face down on the incline bench with your back facing the machine. Raise your right arm directly over your right shoulder to arm's length. Keep your upper arm in line with your body as you inhale and bend your arm at your elbow, letting your lower arm back and down in a semicircular motion until your right forearm and biceps touch. Press the weight stack back to starting position in the same semicircular motion and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side. Be sure your upper arm remains in line with your body throughout the exercise.

▲ Kneeling Face Away Low Pulley One Arm Triceps Curl

Grasp the low pulley cable handle of a wall pulley machine with your right hand as you stand with your back to the machine. Step forward far enough from the pulley to allow your arm to support the weight stack throughout the full range of motion needed to properly perform the exercise as you kneel on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Raise your right hand directly over your right shoulder to arm's length. Keep your upper arm vertical as you inhale and bend your arm at your elbow letting your lower arm back and down in a semicircular motion until your right forearm and biceps touch. Press the weight stack back to starting position in the same semicircular motion and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side. Be sure your upper arm remains in a vertical position throughout the exercise.

▲ Standing Face Away Low Pulley One Arm Triceps Curl

Grasp the low pulley cable handle of a wall pulley with your right hand and turn away from the machine. Raise your right hand directly over your right shoulder to arm's length. Keep your upper arm vertical as you inhale and bend your arm at your elbow letting your lower arm back and down in a semicircular motion until your right forearm and biceps touch. Press the weight stack back to starting position in the same semicircular motion and exhale. Do the prescribed number of repetitions on the right side and then change positions doing the same number of repetitions on the left side. Be sure your upper arm remains in a vertical position throughout the exercise.

▲ Standing Bent Over Reverse Grip One Arm Triceps Extension on Low Pulley

Stand in front of a wall pulley. Grasp the lower right pulley cable handle with your right arm using a palms up grip. Stand back far enough from the pulley to allow your arm to support the weight stack throughout the full range of motion needed to properly perform the exercise as you bend at the waist until your upper body is parallel with the floor, your feet about twelve inches apart and your knees slightly bent with

KNEELING FACE AWAY LOW PULLEY ONE ARM TRICEPS CURL

Triceps



Fig. 1



Fig. 2

STANDING FACE AWAY LOW PULLEY ONE ARM TRICEPS CURL

Triceps

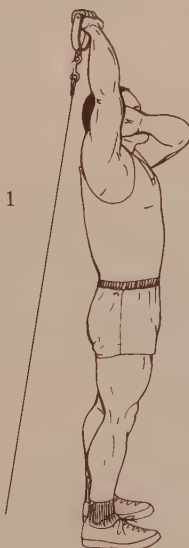


Fig. 1



Fig. 2

STANDING BENT OVER REVERSE GRIP ONE ARM TRICEPS EXTENSION ON LOW PULLEY

Triceps



Fig. 1

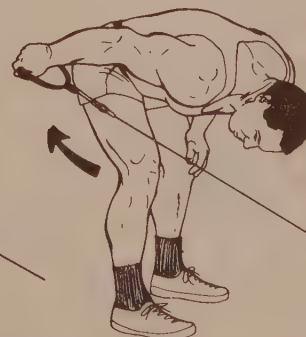


Fig. 2

INCLINE FACE AWAY LOW PULLEY TWO ARM TRICEPS CURL

Triceps

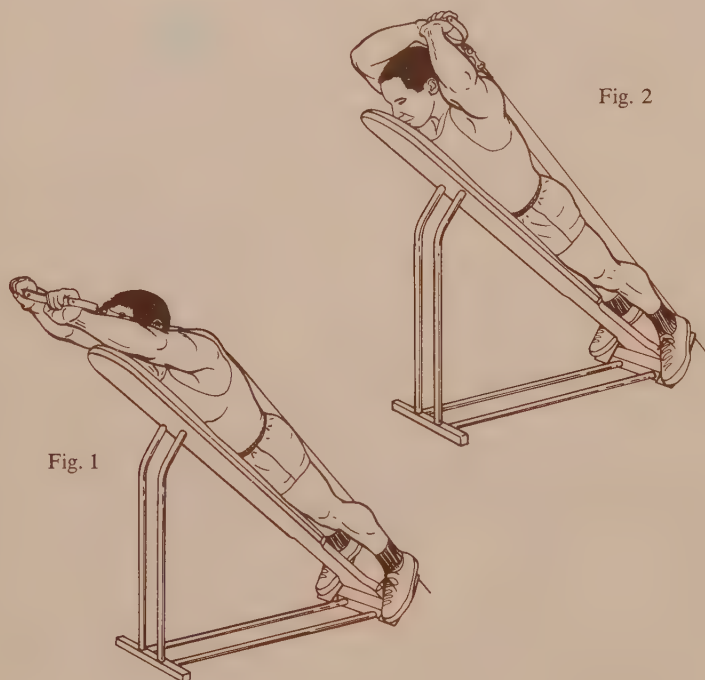


Fig. 1

Fig. 2

STANDING FACE AWAY LOW PULLEY TWO ARM TRICEPS CURL

Triceps

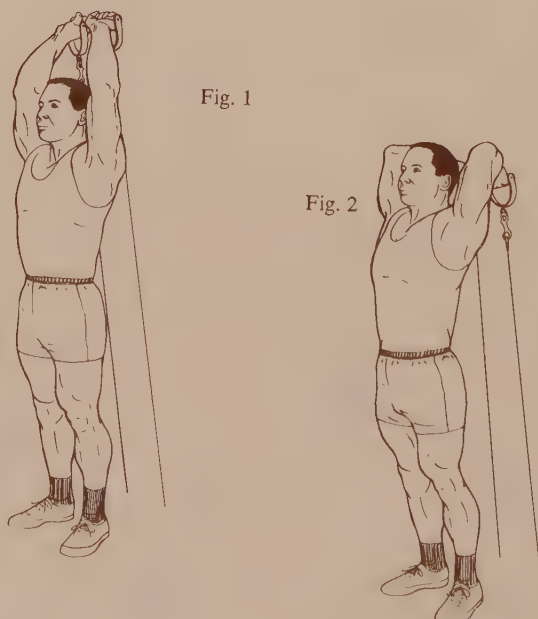


Fig. 1

Fig. 2

your left hand on your left knee to help support your upper body. Draw your upper right arm into your side, causing your biceps and forearm to touch, keeping the palms up hand grip. Inhale and press your lower arms straight down and back in a semicircular motion until your right arm is nearly parallel with the floor. Hold the top position for a short period to contract the triceps muscle and then slowly lower the weight stack back to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

■ Incline Face Away Low Pulley Two Arm Triceps Curl

Place an incline bench in front of a wall pulley with the foot pads closest to the machine. Grasp the low pulley cable handles with both hands and turn away from the machine. Have the incline bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Lie face forward on the incline bench and straighten your arms over your head. Keep your upper arms in close to the sides of your head and inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position overhead and exhale.

■ Standing Face Away Low Pulley Two Arm Triceps Curl

Stand in front of a wall pulley machine with your back towards the pulley. Bend down and grasp the low pulley cable handles with both hands. Stand forward far enough from the machine to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Press both of your arms overhead to arm's length, keeping them vertical with the floor. Keep your upper arms in close to the sides of your head and inhale as you let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stack back to starting position overhead and exhale.

■ Seated Incline Face Away Low Pulley Two Arm Triceps Curl

Triceps

Place an incline bench in front of a wall pulley with the high end of the bench clos-

est to the machine. Stand in front of the pulley with your back towards the machine. Bend down and grasp the low pulley cable handles with both hands. Step forward and sit on the incline bench with your back straight, head up and feet on the foot pads. Have the incline bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Press both of your arms overhead to arm's length, keeping them vertical with the floor. Keep your upper arms in close to the sides of your head and inhale as you let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position overhead and exhale.

■ Seated Face Away Low Pulley Two Arm Triceps Curl

Place a flat bench long ways in front of a wall pulley. Have the bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Stand in front of the pulley with your back towards the machine. Bend down and grasp the low pulley cable handles with both hands. Step forward and sit at the end of the bench with your back facing the machine. Keep your back straight, head up and feet planted firmly on the floor. Press both of your arms overhead to arm's length keeping them vertical with the floor. Keep your upper arms in close to the sides of your head and inhale as you let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position overhead and exhale.

▲ Seated Back Supported Face Away Low Pulley Two Arm Triceps Curl

Place a chair in front of a wall pulley with the back of the chair closest to the machine. Have the chair far enough from the pulley to allow your arms to support the weight stack throughout the full range of motion needed to properly perform the exercise. Stand in front of the pulley with your back towards the machine. Bend down and grasp the low pulley cable handles with both hands. Step forward and sit on the chair with your back against the support, head up and feet planted firmly on the floor. Press both of your arms overhead to

SEATED FACE AWAY LOW PULLEY TWO ARM TRICEPS CURL

Triceps

Fig. 1

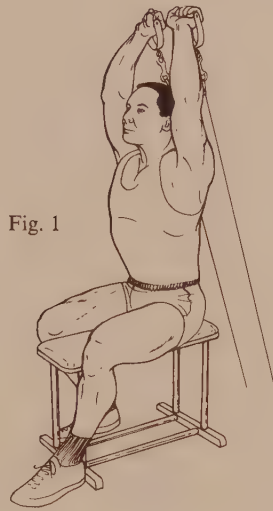
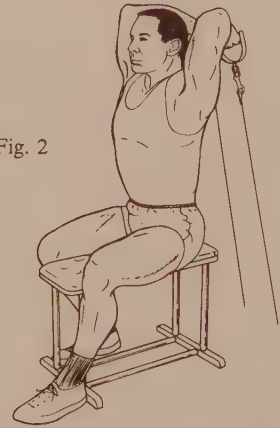


Fig. 2



SEATED BACK SUPPORTED FACE AWAY LOW PULLEY TWO ARM TRICEPS CURL

Triceps

Fig. 1

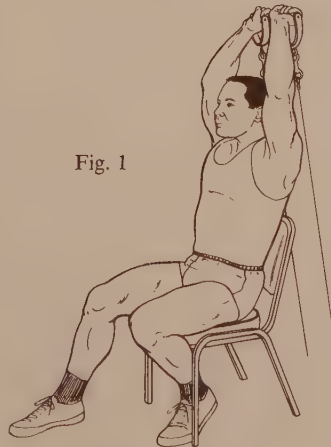
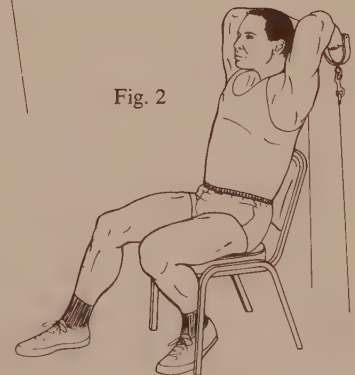


Fig. 2



KNEELING FACE AWAY LOW PULLEY TWO ARM TRICEPS CURL

Triceps

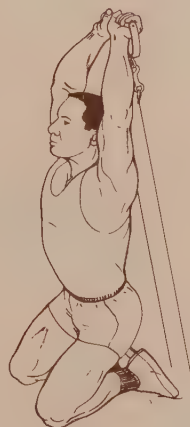


Fig. 1

Fig. 2



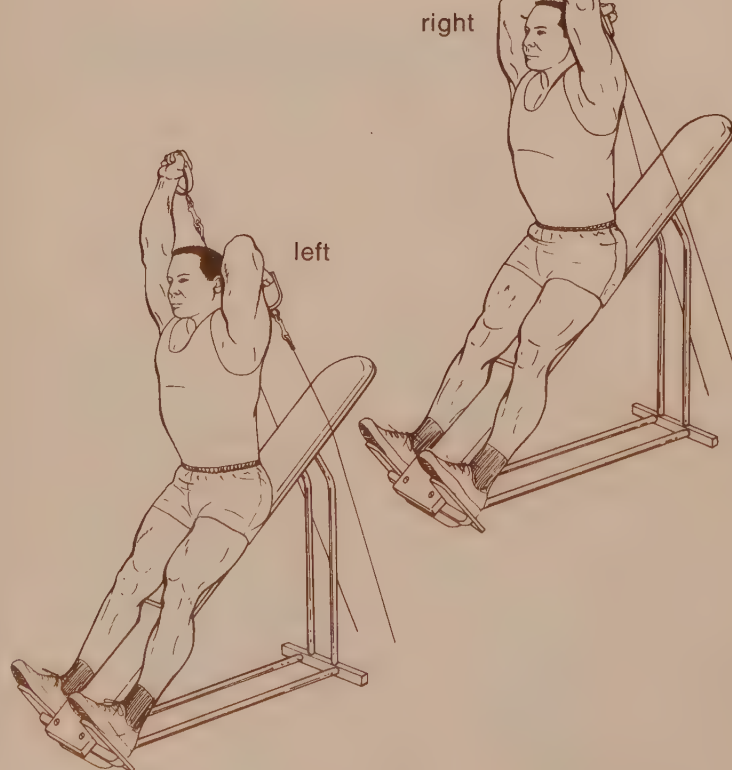
arm's length, keeping them vertical with the floor. Keep your upper arms in close to the sides of your head and inhale as you let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position overhead and exhale.

■ Kneeling Face Away Low Pulley Two Arm Triceps Curl

Stand in front of a wall pulley machine with your back towards the pulley. Bend down and grasp the low pulley cable handles with both hands. Step forward far enough from the machine to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise as you kneel down on the floor sitting down until your leg biceps and calves touch. Press both of your arms overhead to arm's length, keeping them vertical with the floor. Keep your upper arms in close to the sides of your head and inhale as you let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position overhead and exhale.

SEATED INCLINE FACE AWAY LOW PULLEY ALTERNATED TRICEPS CURL

Triceps

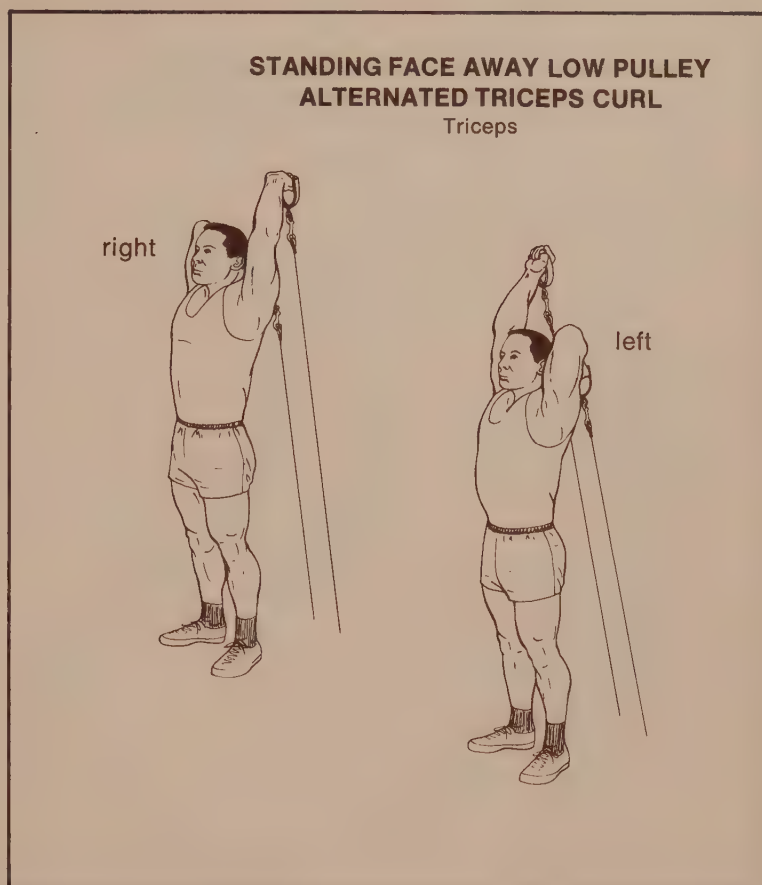


▲ Seated Incline Face Away Low Pulley Alternated Triceps Curl

Place an incline bench in front of a wall pulley with the high end of the bench closest to the machine. Have the incline bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Turn away from the machine and grasp the low pulley cable handles with both hands. Step forward and sit on the incline bench with your back facing the machine. Keep your back straight and your head up. Straighten your arms over your head to a vertical position and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower right arm back in a semicircular motion until your right forearm and biceps touch. Press the weight stack back to starting position and exhale. Now, inhale and let your lower left arm back in a semicircular motion until your left forearm and biceps touch. Return it to starting position and exhale. Alternate from your right arm to your left arm until the prescribed number of repetitions are completed.

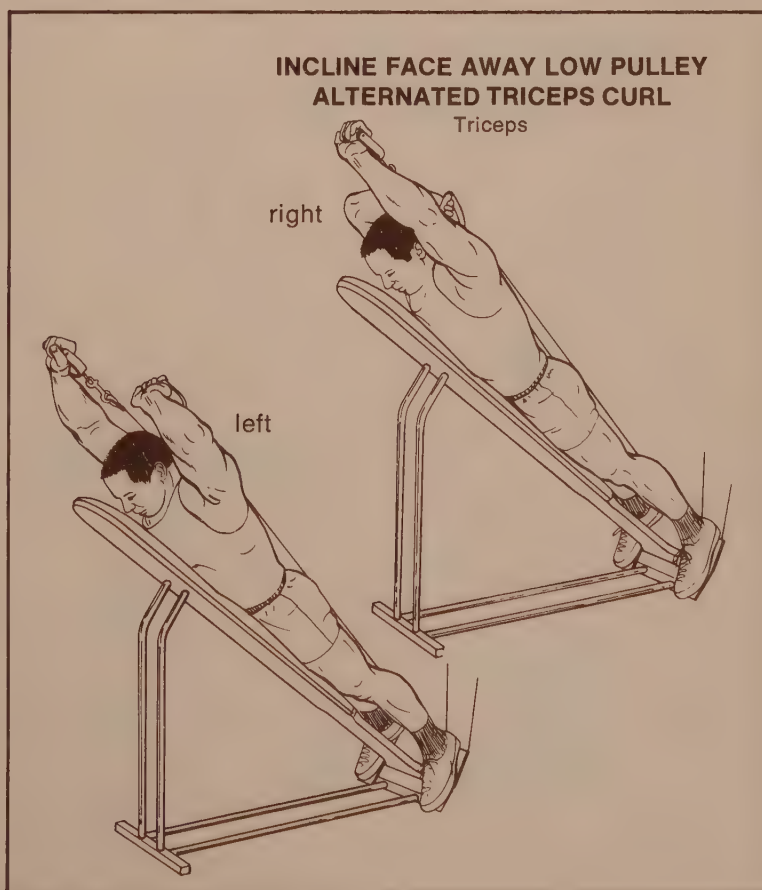
▲ Standing Face Away Low Pulley Alternated Triceps Curl

Stand in front of a wall pulley facing away from the machine and grasp the two lower pulley cable handles with both hands. Step back far enough from the machine to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Keep your back straight, head up and feet planted firmly on the floor as you straighten your arms over your head to a vertical position and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower right arm back in a semicircular motion until your right forearm and biceps touch. Press the weight stack to starting position and exhale. Now, inhale and let your left arm back in a semicircular motion until your left forearm and biceps touch. Return it to starting position and exhale. Alternate from your right arm to your left arm until the prescribed number of repetitions are completed.



▲ Incline Face Away Low Pulley Alternated Triceps Curl

Place an incline bench in front of a wall pulley with the low end of the bench closest to the machine. Have the incline bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Turn away from the machine and grasp the low pulley cable handles with both hands. Step forward and lie face down on the incline bench with your back facing the machine. Straighten your arms over your head keeping them in line with your body and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower right arm back in a semicircular motion until your right forearm and biceps touch. Press the weight stack back to starting position and exhale. Now, inhale and let your lower left arm back in a semicircular motion until your left forearm and biceps touch. Return it to starting position and exhale. Alternate from your right arm to your left arm until the prescribed number of repetitions are completed.

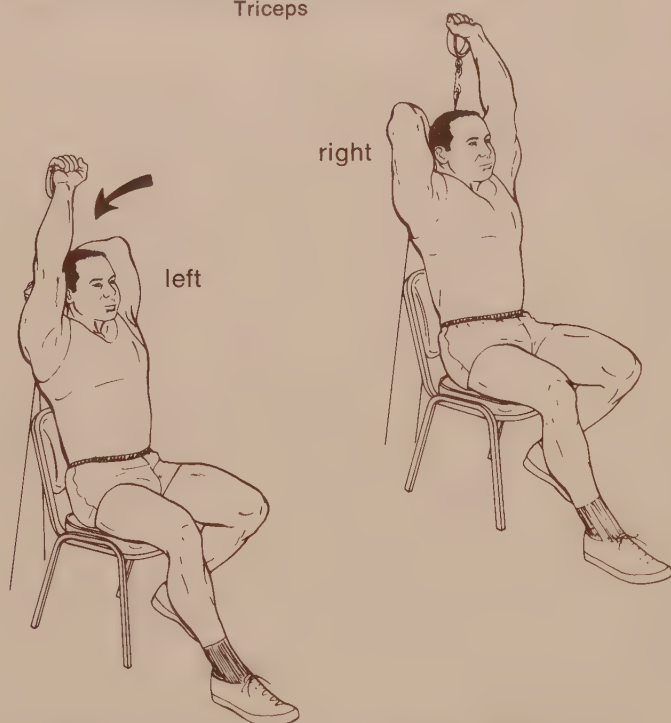


▲ Seated Back Supported Face Away Low Pulley Alternated Triceps Curl

Place a chair in front of a wall pulley with the back of the chair facing the machine.

SEATED BACK SUPPORTED FACE AWAY LOW PULLEY ALTERNATED TRICEPS CURL

Triceps



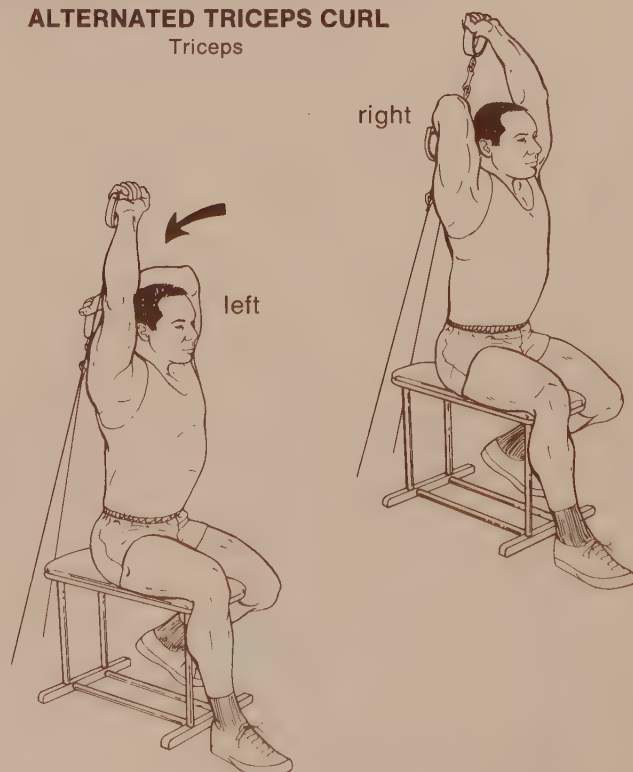
Have the chair far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Turn away from the machine and grasp the low pulley cable handles with both hands. Step forward and sit on the chair with your back against the support, head up and feet planted firmly on the floor. Straighten your arms over your head to a vertical position and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower right arm back in a semicircular motion until your right forearm and biceps touch. Press the weight stack back to starting position and exhale. Now, inhale and let your left arm back in a semicircular motion until your left forearm and biceps touch. Return it to starting position and exhale. Alternate from your right arm to your left arm until the prescribed number of repetitions are completed.

▲ Seated Face Away Low Pulley Alternated Triceps Curl

Place a flat bench long ways in front of a wall pulley. Have the bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Turn away from the machine and grasp the low pulley cable handles with both hands. Step forward and sit on the end of the bench with your back straight, head up and feet planted firmly on the floor. Straighten your arms over your head to a vertical position and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower right arm back in a semicircular motion until your right forearm and biceps touch. Press the weight stack back to starting position and exhale. Now, inhale and let your lower left arm back in a semicircular motion until your left forearm and biceps touch. Return it to starting position and exhale. Alternate from your right arm to your left arm until the prescribed number of repetitions are completed.

SEATED FACE AWAY LOW PULLEY ALTERNATED TRICEPS CURL

Triceps



▲ Kneeling Face Away Low Pulley Alternated Triceps Curl

Triceps

Grasp the low pulley cable handles of a wall pulley machine with both hands as you stand with your back to the machine. Step forward far enough from the pulley to allow

your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise as you kneel on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Straighten your arms over your head to a vertical position and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower right arm back in a semi-circular motion until your right forearm and biceps touch. Return it to starting position and exhale. Alternate from your right arm to your left arm until the prescribed number of repetitions are completed.

■ Seated Back Supported Face Away Low Pulley Bar Triceps Curl

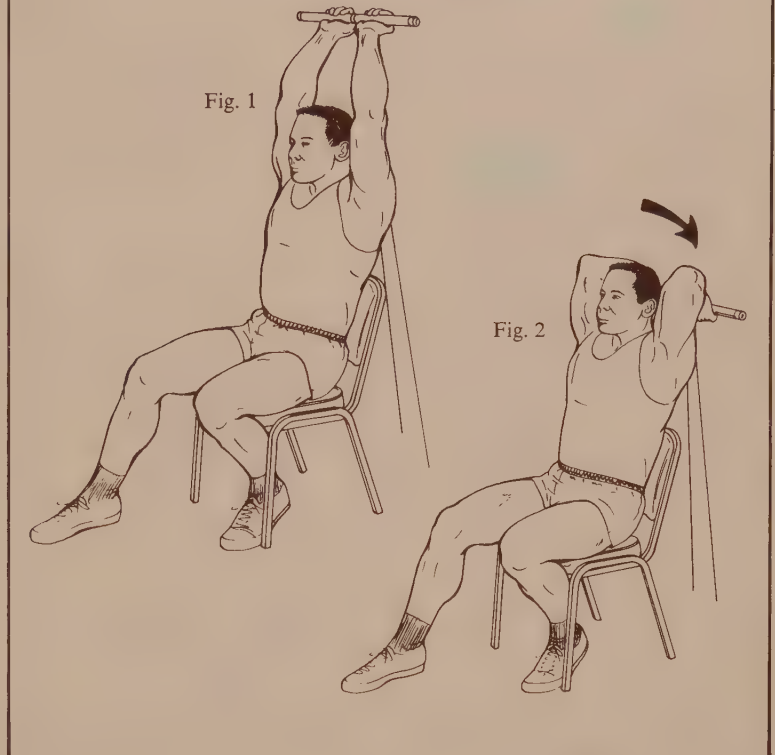
Place a chair in front of a wall pulley with the back of the chair closest to the machine. Have the chair far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Attach a short straight bar to the two lower pulley cables of the machine. Grasp the bar with both hands using a palms down grip and turn away from the machine and sit on the chair with your back against the supports, head up and feet planted firmly on the floor. Straighten your arms over your head to a vertical position and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower arms back in a semi-circular motion until your forearms and biceps touch. Press the weight stacks back to starting position using a similar path and exhale.

■ Incline Face Away Low Pulley Bar Triceps Curl

Place an incline bench long ways in front of a wall pulley. Have the low end of the bench closest to the machine but back far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Attach a short straight bar to the two lower pulley cables of the machine. Grasp the bar with both hands using a palms down grip and turn away from the machine and lie face down on the incline bench. Straighten your arms over your head keeping them in line with your body. Keep your upper arms in close to the sides of your head during the exer-

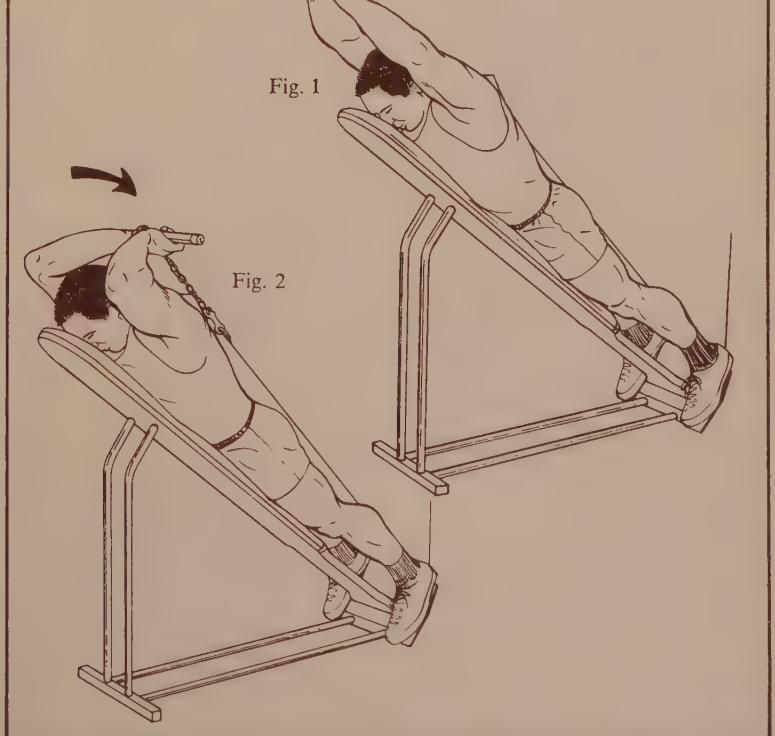
SEATED BACK SUPPORTED FACE AWAY LOW PULLEY BAR TRICEPS CURL

Triceps



INCLINE FACE AWAY LOW PULLEY BAR TRICEPS CURL

Triceps



SEATED FACE AWAY LOW PULLEY BAR TRICEPS CURL

Triceps

Fig. 1



Fig. 2

cise. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position using a similar path and exhale.

■ Seated Face Away Low Pulley Bar Triceps Curl

Place a bench long ways in front of a wall pulley. Have the bench far enough from the machine to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Attach a short straight bar to the two lower pulley cables of the machine. Grasp the bar with both hands using a palms down grip and turn away from the machine and sit on the end of the bench with your back straight and your head up. Straighten your arms over your head to a vertical position and keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position using a similar path and exhale.

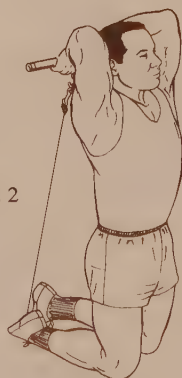
KNEELING FACE AWAY LOW PULLEY BAR TRICEPS CURL

Triceps

Fig. 1



Fig. 2



▲ Kneeling Face Away Low Pulley Bar Triceps Curl

Attach a short straight bar to the two lower pulley cables of a wall pulley. Grasp the bar with both hands using a palms down grip and turn away from the machine. Step forward far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Kneel down on the floor and sit down until your leg biceps and calves are touching. Straighten your arms over your head to a vertical position. Keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position using a similar path and exhale.

▲ Standing Face Away Low Pulley Bar Triceps Curl

Triceps

Attach a short straight bar to the two lower pulley cables of a wall pulley. Grasp the bar with both hands using a palms down grip and turn away from the machine. Step for-

ward far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms over your head to a vertical position. Keep your upper arms in close to the sides of your head during the exercise. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position using a similar path and exhale.

▲ Triceps on Nautilus Type Machine

There will be variations as to how this exercise is performed depending on the make of the machine. The basic idea of the movement is to sit in the machine and place your clenched hands on the pads provided with your palms facing each other. Your upper arms, or elbows, should rest on the pads provided for them. Inhale and press the arm of the machine out in a semicircular motion until your arms are straight and your elbows are locked out. Keep your elbows on the pads. Hold your arms in the locked position for a short period to contract the triceps muscles and then slowly return the arm to starting position in a controlled manner and exhale.

▲ Seated Towel Triceps Curl

Hold the end of a towel, or a soft rope, with both hands and sit with your back at the end of a bench. Keep your back straight and your head up as you put your arms directly overhead keeping them vertical with the floor. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull on the towel as you resist and bend your arms at the elbows lowering them behind your head in a semicircular motion until your forearms and biceps touch. Now with the same controlled movement YOU now apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to the top position.

▲ Seated Back Supported Towel Triceps Curl

Triceps

Hold the end of a towel, or soft rope, with

TRICEPS ON NAUTILUS TYPE MACHINE

Triceps

Fig. 1

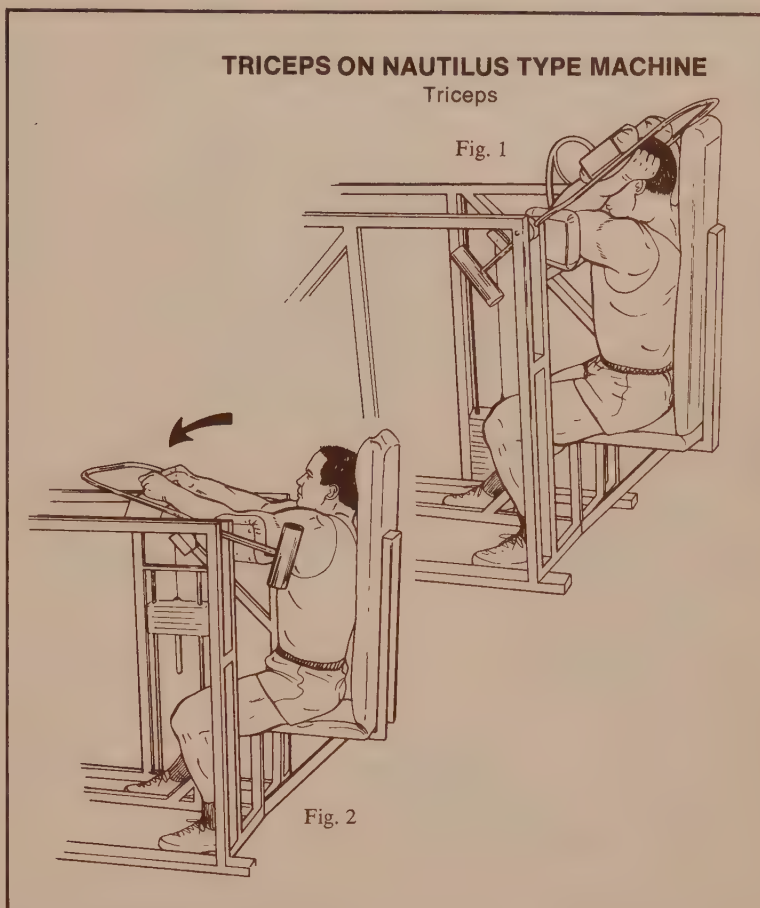


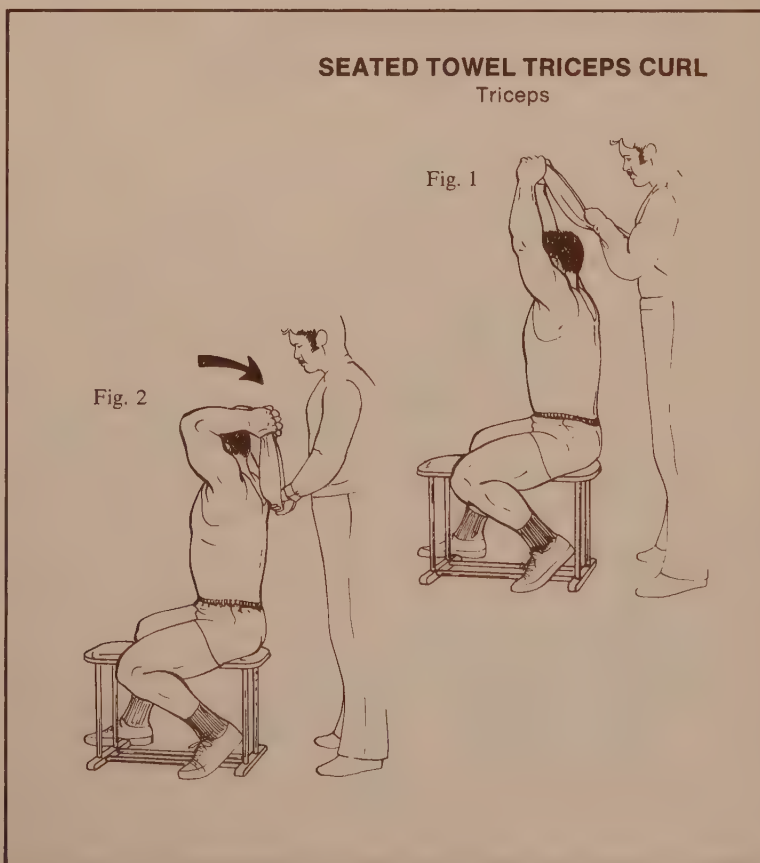
Fig. 2

SEATED TOWEL TRICEPS CURL

Triceps

Fig. 1

Fig. 2



INCLINE FACE DOWN TOWEL TRICEPS CURL

Triceps

Fig. 1

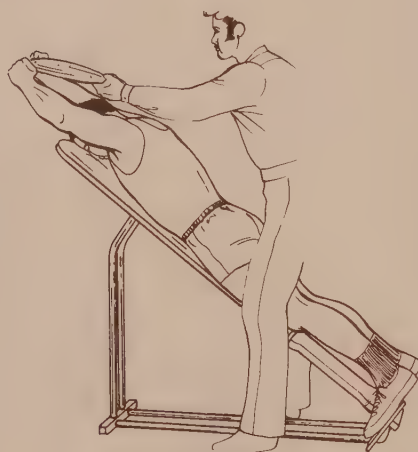


Fig. 2



both hands and sit on a chair with your back against the support, your head up and feet planted firmly on the floor. Put your arms directly overhead keeping them vertical with the floor. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull on the towel as you resist and bend your arms at the elbows lowering them behind your head in a semicircular motion until your forearms and biceps touch. Now with the same controlled movement YOU apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to the top position.

▲ Incline Face Down Towel Triceps Curl

Hold the end of a towel, or soft rope, with both hands and lie face down on an incline bench with your feet on the foot pads. Put your arms directly overhead keeping them in line with your body. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull the towel as you resist and bend your arms at the elbows lowering them behind your head in a semicircular motion until your forearms and biceps touch. Now with the same controlled movement YOU apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to top position.

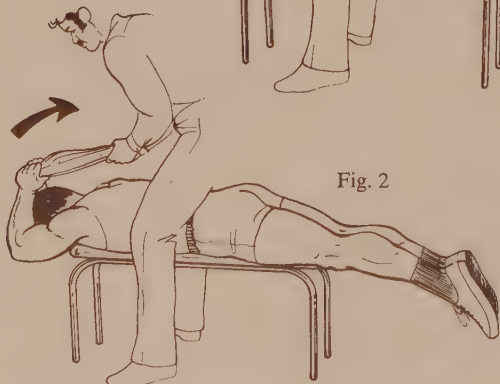
LYING FACE DOWN TOWEL TRICEPS CURL

Triceps

Fig. 1



Fig. 2

**▲ Lying Face Down Towel Triceps Curl**

Hold the end of a towel, or a soft rope, with both hands and lie face down on a flat bench. Put your arms directly out in front of you keeping them parallel with the floor. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull the towel as you resist and bend your arms at the elbows lowering them behind your head in a semicircular motion until your forearms and biceps touch. Now with the same controlled movement YOU apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to the beginning position.

▲ Lying Decline Face Down Towel Triceps Curl

Hold the end of a towel, or a soft rope, with both hands and lie face down on a decline bench with your head towards the lowest end. Put your arms directly out in front of you keeping them in line with your body. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull the towel as you resist and bend your arms at the elbows lowering them behind your head in a semicircular motion until your forearms and biceps touch. Now with the same controlled movement YOU apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to starting position.

▲ Lying Floor Face Down Towel Triceps Curl

Triceps

Hold the end of a towel, or a soft rope, with both hands and lie on the floor. Put your arms directly out in front of you parallel with the floor. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull the towel as you resist and bend your arms at the elbows lowering them behind your head in a semicircular motion until your forearms and biceps touch. Now with the same controlled movement YOU apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to starting position.

▲ Standing Towel Triceps Curl

Hold the end of a towel, or soft rope, with both hands and stand erect with your back straight, head up and feet about sixteen inches apart. Put your arms overhead keeping them vertical with the floor. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull on the towel as you resist and bend your arms at the elbows lowering them behind your head in a semicircular motion until your forearms and biceps touch. Now with the same controlled movement YOU now apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to top position.

LYING DECLINE FACE DOWN TOWEL TRICEPS CURL

Triceps

Fig. 1

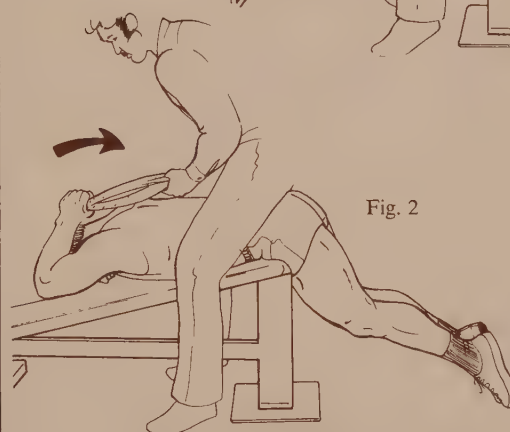


Fig. 2

STANDING TOWEL TRICEPS CURL

Triceps

Fig. 1

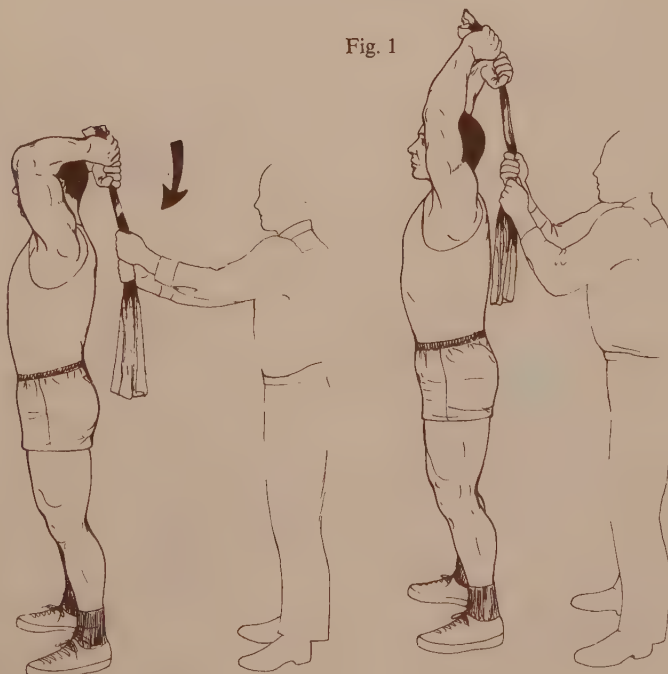


Fig. 2

KNEELING TOWEL TRICEPS CURL

Triceps

Fig. 1

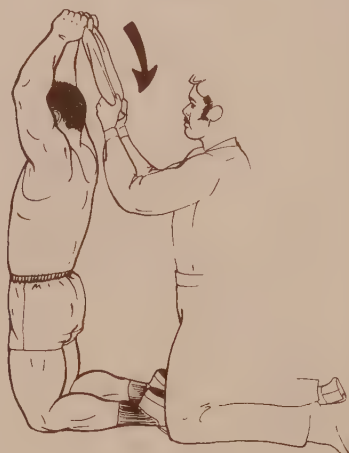


Fig. 2

**▲ Kneeling Towel Triceps Curl**

Hold the end of a towel, or a soft rope, with both hands and kneel on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up as you put your arms directly overhead keeping them vertical with the floor. Have your training partner hold the other end of the towel. Using a controlled non-jerky motion, have your partner pull on the towel as you resist and bend your arms at the elbows lowering them behind your head in a semi-circular motion until your forearms and biceps touch. Now with the same controlled movement YOU apply the pressure and press your arms back to starting position as your training partner gives the resistance. Inhale as you begin the exercise and exhale as you return to the top position.

■ Lying Reverse Grip Triceps Press Under Leg Press Machine

Remove the back rest pad from under a leg press machine and put a flat bench in its place. Lie on the bench under the machine and position your upper body so your head is at the end of the bench and the foot rest pad of the machine is above your chest. The nearest end of the foot pad should be in line with the nipples of your pectorals. Place your hands around the far side of the pad using a reverse hand grip about eighteen to twenty inches apart. Press the plate holder to arm's length above your shoulders. Have your training partner turn to safety stops so you are able to lower the pad directly to your chest. Inhale as you let the pad down and keep your elbows in close to your sides. Press the pad back to the top position and exhale. On the final repetition of the set, your training partner should turn the safety stops back to keep the pad off your chest.

LYING REVERSE GRIP TRICEPS PRESS UNDER LEG PRESS MACHINE

Triceps

Fig. 1



Fig. 2

**■ Reverse Grip Dip**

Use a set of parallel bars or a regular dip stand for this exercise. Position yourself on the bars so you are held erect by your arms having your hands supporting your weight using a reverse grip on the bars. Be sure the bars are high enough for you to lower yourself to a position without having your feet touch the floor. Keep your elbows out to your sides while lowering your body downward by bending your arms. You should continue downward until your forearms and biceps come together. Pause a

short time and then press yourself back to arm's length forcing a lockout of the elbows thereby contracting the triceps and pectoral muscles. Do not let your body swing back and forth during this exercise. With a little practice and concentration, it will be very easy for you to control the body position. Inhale as you lower yourself and exhale as you push yourself back to starting position.

★ Reverse Grip Dip With Weight

Lower pectorals and triceps

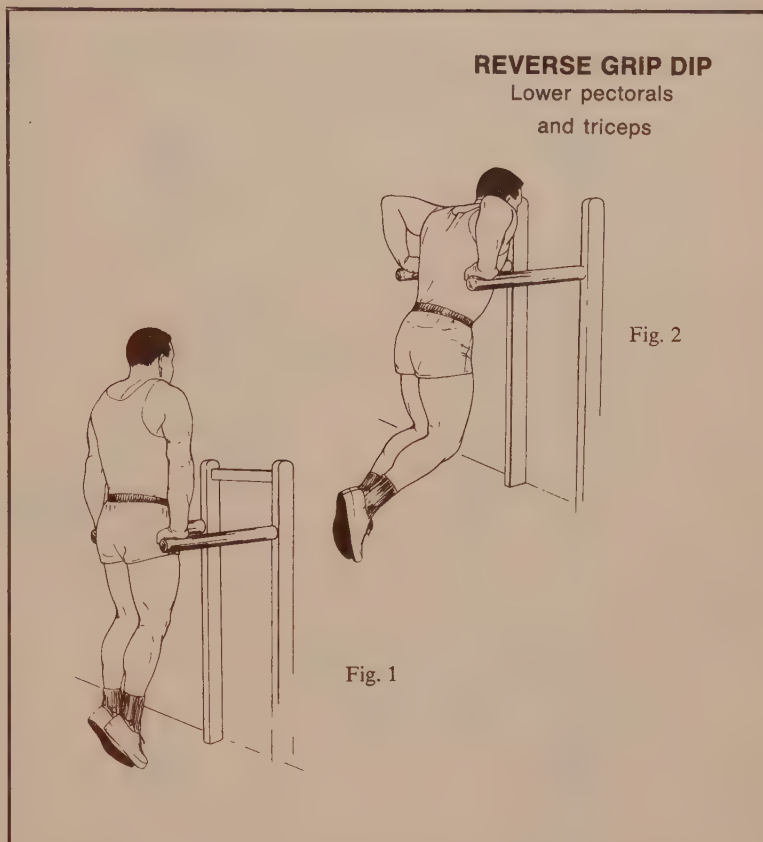
You can either use a webbed belt or a piece of rope to hold a dumbbell between your thighs while performing this exercise. Use a set of parallel bars or a regular dip stand for this exercise. Position yourself on the bars so you are held erect by your arms having your hands supporting your weight using a reverse grip on the bars. Be sure the bars are high enough for you to lower yourself to a position without having your feet touch the floor. Keep your elbows out to your sides while lowering your body downward by bending your arms. You should continue downward until your forearms and biceps come together. Pause a short time and then press yourself back to arm's length forcing a lock out of the elbows thereby contracting the triceps and pectoral muscles. Do not let your body swing back and forth during this exercise. With a little practice and concentration, it will be very easy for you to control the body position. Inhale as you lower yourself and exhale as you push yourself back to starting position.

▲ Standing Two Arm Triceps Press Down on High Wall Pulley

Grasp the high pulley cable handles of a wall pulley with both hands as you stand facing the machine. Stand back far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Keep your back straight, head up and feet about twelve inches apart. Draw your upper arms in to your sides causing your biceps and forearms to touch. Keep the palms of your hands facing down. Inhale and press your lower arms straight down in a semicircular motion until your arms are at your sides vertical with the floor. Return to starting position using a similar path and exhale, making sure your upper arms remain directly at your sides during the exercise.

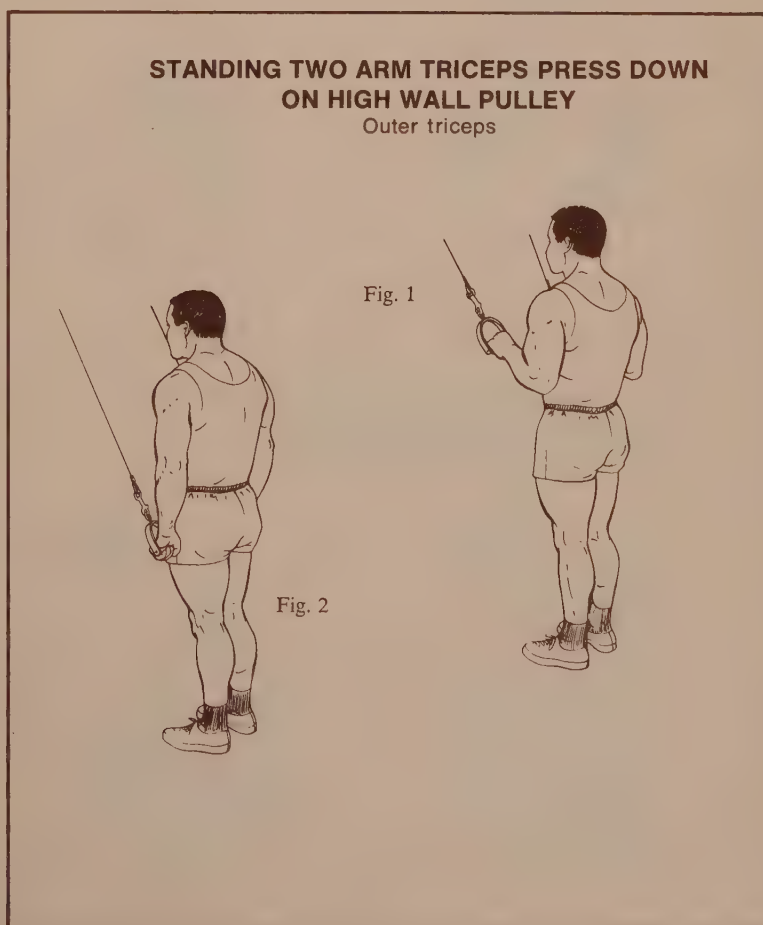
REVERSE GRIP DIP

Lower pectorals
and triceps



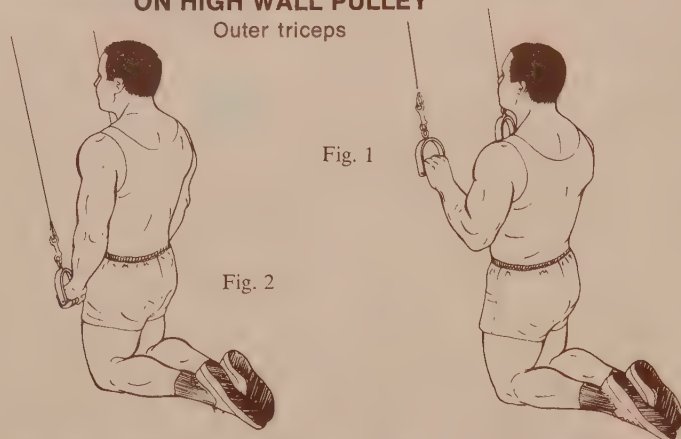
STANDING TWO ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps



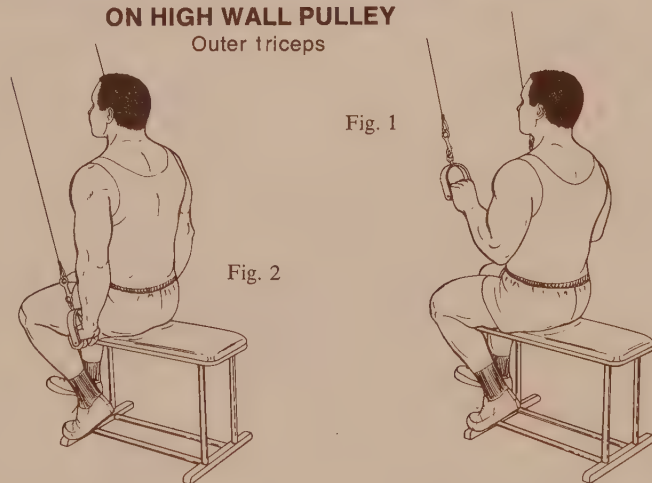
KNEELING TWO ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps



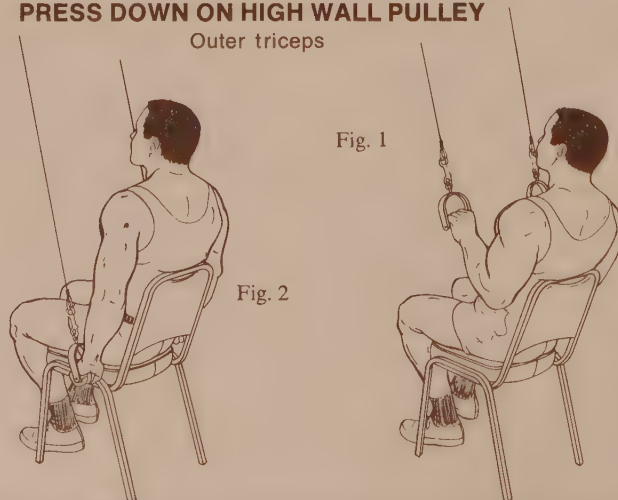
SEATED TWO ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps



SEATED BACK SUPPORTED TWO ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps



▲ Kneeling Two Arm Triceps Press Down on High Wall Pulley

Grasp the high pulley cable handles of a wall pulley with both hands as you stand facing the machine. Stand back far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Kneel down on the floor until your leg biceps and calves touch. Keep your back straight and your head up. Draw your upper arms in to your sides causing your biceps and forearms to touch. Keep the palms of your hands facing down. Inhale and press your lower arms straight down in a semicircular motion until your arms are at your sides vertical with the floor. Return to starting position, using a similar path and exhale, making sure your upper arms remain directly at your sides during the exercise.

▲ Seated Two Arm Triceps Press Down on High Wall Pulley

Place a flat bench long ways in front of a wall pulley. Grasp the high pulley cable handles of the machine with both hands as you stand facing the machine. Be sure the bench is far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise as you sit facing the machine. Keep your back straight, head up and feet planted firmly on the floor. Draw your upper arms in to your sides causing your biceps and forearms to touch. Keep the palms of your hands facing down. Inhale and press your lower arms straight down in a semicircular motion until your arms are at your sides vertical with the floor. Return to starting position using a similar path and exhale, making sure your upper arms remain directly at your sides during the exercise.

▲ Seated Back Supported Two Arm Triceps Press Down on High Wall Pulley

Place a chair in front of a wall pulley with the back of the chair facing away from the machine. Grasp the high pulley cable handles of the pulley with both hands as you stand facing the machine. Be sure the chair is far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise as you sit on the chair with your back against the support, your head up and feet planted firmly on the floor. Draw your upper arms in to your sides causing your biceps and forearms to touch. Keep the palms of your

hands facing down. Inhale and press your lower arms straight down in a semi-circular motion until your arms are at your sides vertical with the floor. Return to starting position using a similar path and exhale making sure your upper arms remain directly at your sides during the exercise.

▲ Kneeling Concentrated Triceps Curl on High Pulley

Grasp a high pulley cable handle of a wall machine with your right hand and turn your left side toward the machine. Kneel down on your left knee and keep your right leg bent with your upper thigh parallel with the floor. Be sure to step far enough away from the machine so your right arm is supporting the weight stack. Using a palms up hand grip, place your right upper arm against your right thigh and keep it there during the exercise. Inhale and press down in a semi-circular motion until your right arm is vertical. Use a controlled motion when returning to starting position. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

▲ Standing Concentrated Triceps Curl on High Pulley

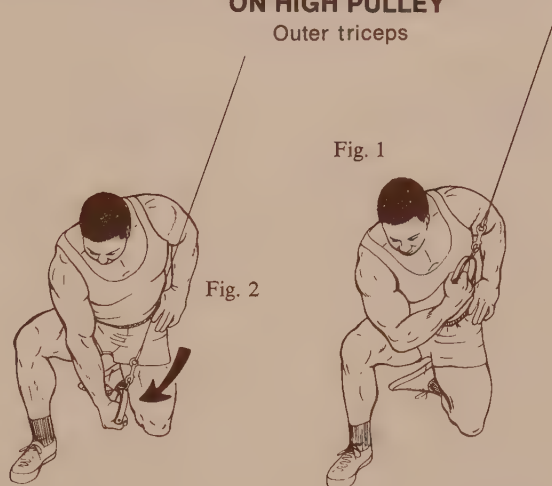
Grasp a high pulley cable handle of a wall machine with your right hand and turn your left side toward the machine. Bend forward slightly at the waist as you squat down until your upper thighs are nearly parallel with the floor. Be sure to step far enough away from the machine so your right arm is supporting the weight stack. Using a palms up grip, place your right upper arm against your right thigh and keep it there during the exercise. Inhale and press down in a semicircular motion until your right arm is vertical. Use a controlled motion when returning to starting position. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

▲ Seated Concentrated Triceps Curl on High Pulley

Place a bench side ways in front of a wall pulley. Grasp a high pulley cable handle of the wall machine with your right hand and turn your left side towards the pulley. Step back and sit on the bench, bending slightly at the waist, with your left lower leg bent at the knee and your left hand placed

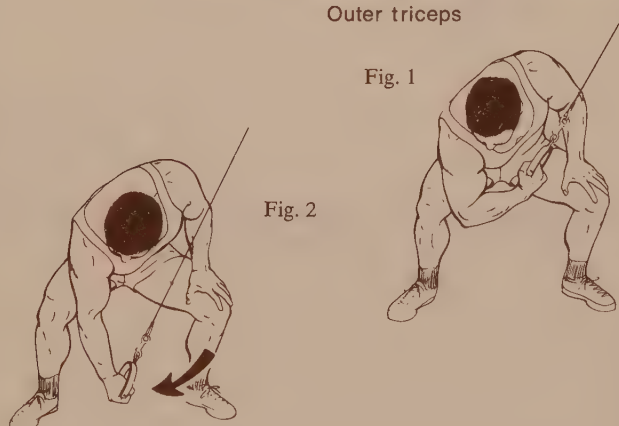
KNEELING CONCENTRATED TRICEPS CURL ON HIGH PULLEY

Outer triceps



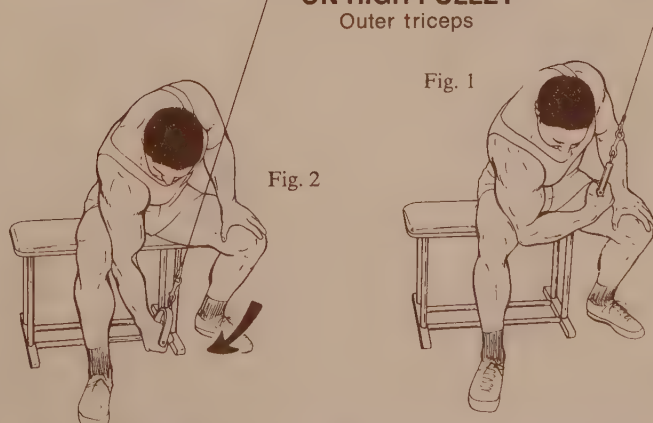
STANDING CONCENTRATED TRICEPS CURL ON HIGH PULLEY

Outer triceps



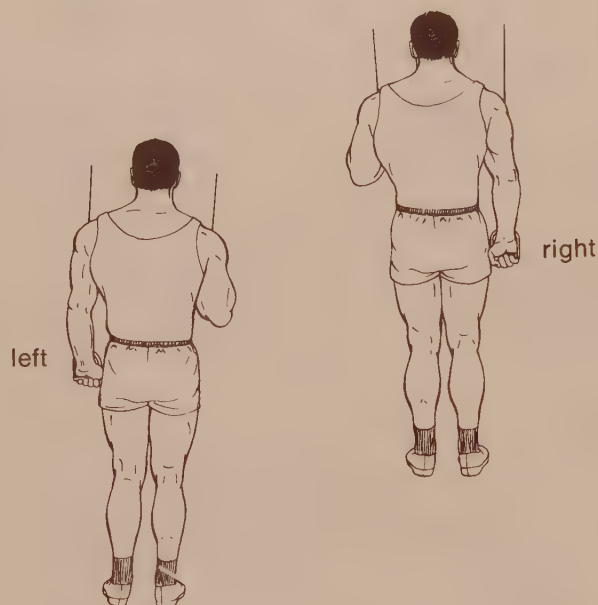
SEATED CONCENTRATED TRICEPS CURL ON HIGH PULLEY

Outer triceps



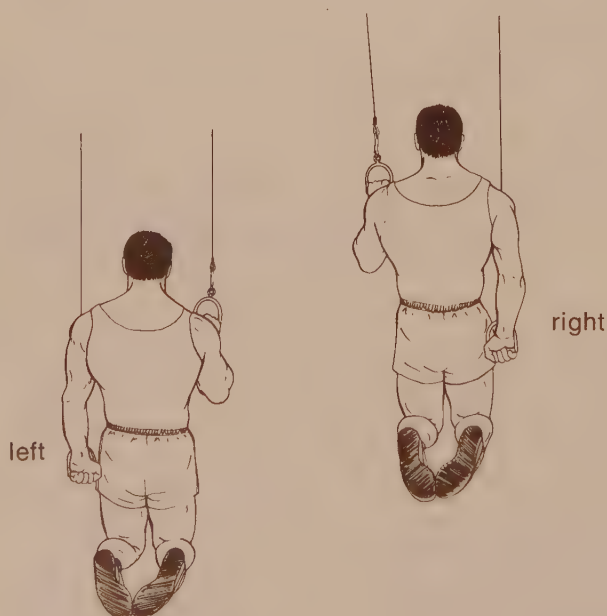
STANDING FACING ALTERNATED TWO ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps



KNEELING FACING ALTERNATED TWO ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps



on your upper left thigh. Be sure the bench is far enough away from the machine so your right arm is supporting the weight stack. Using a palms up hand grip, place your right upper arm against your right thigh and keep it there during the exercise. Inhale and press down in a semicircular motion until your right arm is vertical. Use a controlled motion when returning to starting position. Do the prescribed number of repetitions to the right side and then change positions to the left side repeating the same number of repetitions.

▲ Seated Facing Alternated Two Arm Triceps Press Down on High Wall Pulley

Triceps

Place a bench or stool in front of a wall pulley. Grasp the upper pulley cable handles with your hands using a palms down grip. Sit on the stool and keep your back straight and your head up. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the handle in your right hand down in a semicircular motion to arm's length. As you commence to return the right arm to starting position, start to bring the left arm down in a similar semicircular motion to arm's length. As the right arm returns to starting position the left arm is being lowered. Inhale as you work the right arm and exhale as you work the left arm.

▲ Standing Facing Alternated Two Arm Triceps Press Down on High Wall Pulley

Stand facing a wall pulley. Grasp the upper pulley cable handles with your hands using a palms down grip. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the handle in your right hand down in a semicircular motion to arm's length. As you commence to return the right arm to starting position, start to bring the left arm down in a similar semicircular motion to arm's length. As the right arm returns to starting position the left arm is being lowered. Inhale as you work the right arm and exhale as you work the left arm.

▲ Kneeling Facing Alternated Two Arm Triceps Press Down on High Wall Pulley

Stand facing a wall pulley. Grasp the pulley cable handles with your hands, using a palms down grip. Kneel down on your knees and keep your back straight and

your head up. Bring your upper arms to your sides and keep them there throughout the exercise. Your forearms and biceps should be touching as you inhale and then press the handle in your right hand down in a semicircular motion to arm's length. As you commence to return the right arm to starting position, start to bring the left arm down in a similar semicircular motion to arm's length. As the right arm returns to starting position the left arm is being lowered. Inhale as you work the right arm and exhale as you work the left arm.

▲ Standing Facing One Arm Triceps Press Down on High Wall Pulley

Stand facing a wall pulley. Grasp the upper right pulley cable handle with your right hand using a palms down grip. Bring your upper right arm to your right side and keep it there throughout the exercise. Your right forearm and right biceps should be touching as you inhale and then press the handle down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

▲ Kneeling Facing One Arm Triceps Press Down on High Wall Pulley

Triceps

Stand facing a wall pulley. Grasp the upper right pulley cable handle with your right hand using a palms down grip. Kneel down on your knees and keep your back straight and your head up. Bring your upper right arm to your right side and keep it there throughout the exercise. Your right forearm and right biceps should be touching as you inhale and then press the handle down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

▲ Seated Facing One Arm Triceps Press Down on High Wall Pulley

Place a bench or stool in front of a wall pulley. Grasp the upper right pulley cable handle with your right hand using a palms down grip. Sit on the stool and keep your back straight and your head up. Bring your upper right arm to your right side and keep it there throughout the exercise. Your right

STANDING FACING ONE ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps

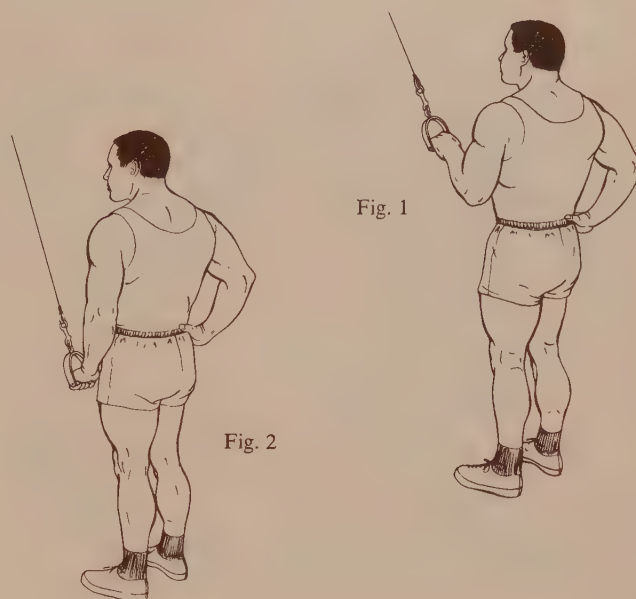


Fig. 1

Fig. 2

SEATED FACING ONE ARM TRICEPS PRESS DOWN ON HIGH WALL PULLEY

Outer triceps

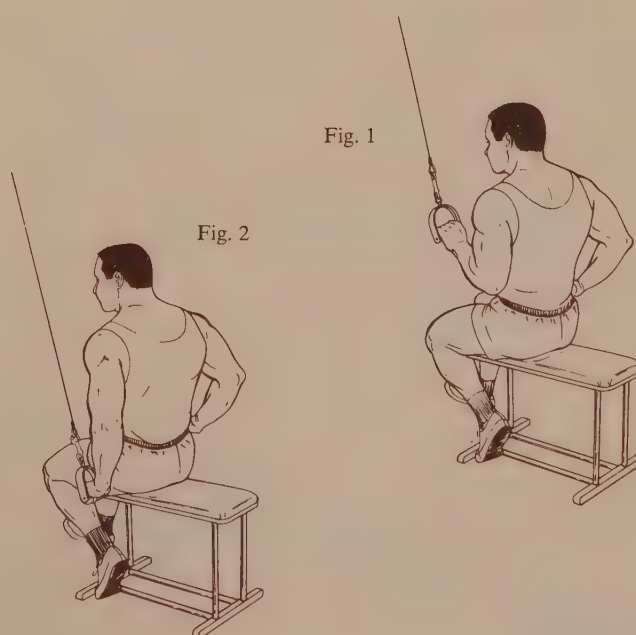


Fig. 1

Fig. 2

INCLINE FACE AWAY TWO ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

Fig. 1

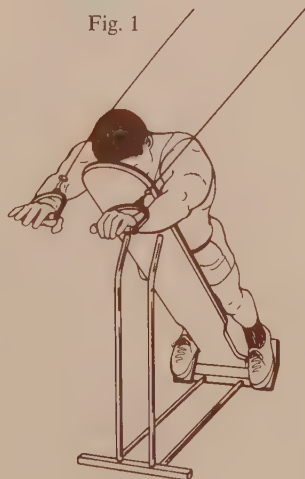
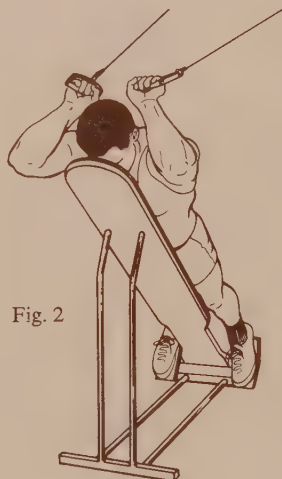


Fig. 2



forearm and right biceps should be touching as you inhale and then press the handle down in a semicircular motion to arm's length. Return to starting position using a similar path, in a controlled manner, and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

▲ Incline Face Away Two Arm Triceps Extension on High Pulley

Place an incline bench in front of a wall pulley with the foot pads closest to the machine. Grasp the high pulley cable handles with both hands and turn away from the wall pulley. Have the incline bench far enough from the machine to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Lie face forward on the incline bench and straighten your arms out in front of you keeping them parallel with the floor. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position in front of you and exhale. Remember your upper arms must remain parallel during the exercise.

SEATED FACE AWAY TWO ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

Fig. 1

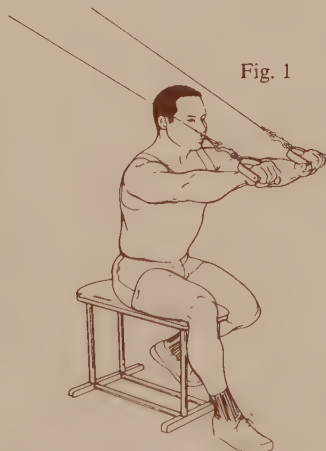
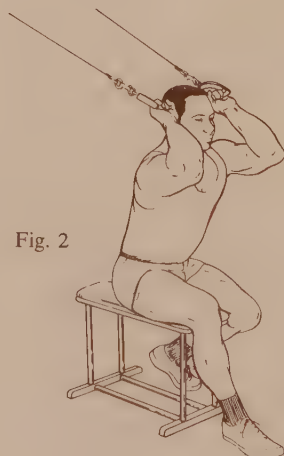


Fig. 2



▲ Seated Face Away Two Arm Triceps Extension on High Pulley

Place a flat bench long ways in front of a wall pulley. Grasp the high pulley cable handles with both hands and sit at the end of the bench with your back towards the machine. Have the bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them parallel with the floor. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain parallel during the exercise.

▲ Seated Back Supported Face Away Two Arm Triceps Extension on High Pulley

Triceps

Place a chair with a back support in front of a wall pulley with the back rest closest to the machine. Grasp the high pulley cable handles with both hands and turn away from the wall pulley. Have the chair far enough from the machine to allow your arms to support the weight stacks through-

out the full range of motion needed to properly perform the exercise. Sit on the stool and keep your feet about sixteen inches apart and planted firmly on the floor. Straighten your arms out in front of you keeping them parallel with the floor. Inhale and let your lower arms back in a semi-circular motion until your forearms and biceps touch. Press the weight stacks back to starting position in front of you and exhale. Remember your upper arms must remain parallel during the exercise.

▲ Decline Face Away Two Arm Triceps Extension on High Pulley

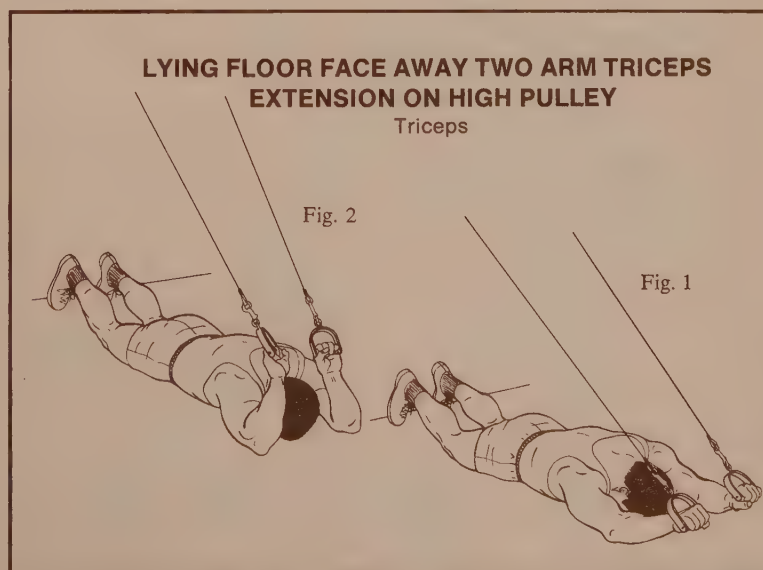
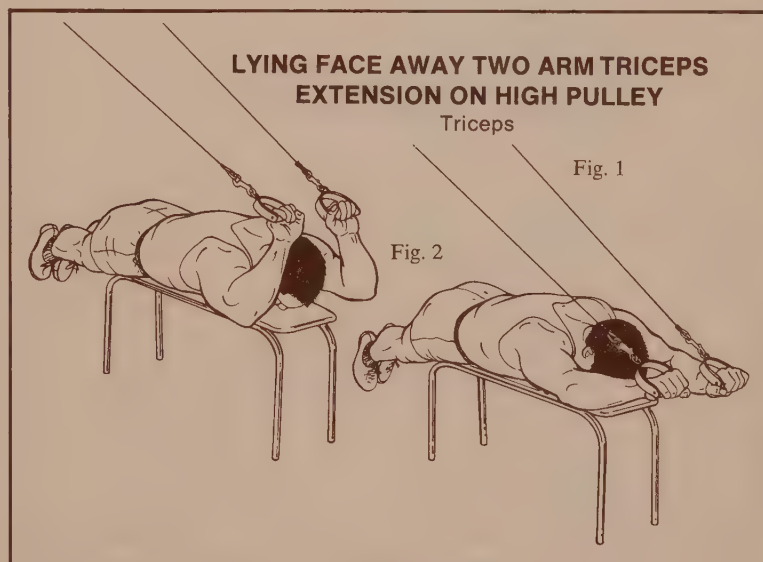
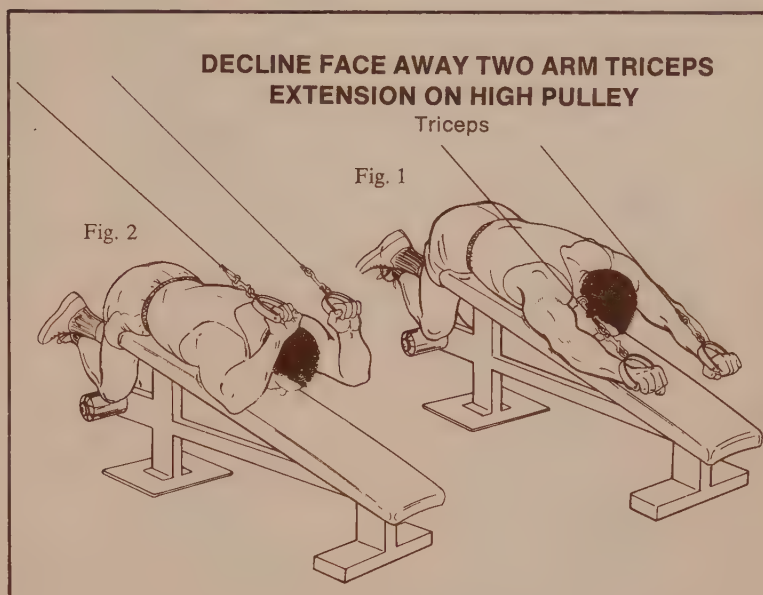
Place a decline bench long ways in front of a wall pulley with the highest end towards the machine. Grasp the high pulley cable handles with both hands and lie face down on the decline bench. Have the decline bench far enough from the machine to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them slightly below parallel with the floor. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain slightly below parallel during the exercise.

▲ Lying Face Away Two Arm Triceps Extension on High Pulley

Place a flat bench long ways in front of a wall pulley. Grasp the high pulley cable handles with both hands and lie face down on the bench with your feet closest to the machine. Have the bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you keeping them slightly above parallel with the floor. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain slightly above parallel during the exercise.

▲ Lying Floor Face Away Two Arm Triceps Extension on High Pulley

Grasp the high pulley cable handles of a wall pulley with both hands and lie on the floor in a prone position in front of the pulley with your feet closest to the machine. Lie back far enough from the pulley to allow your arms to support the weight stacks



STANDING FACE AWAY TWO ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps



Fig. 1



Fig. 2

KNEELING FACE AWAY TWO ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

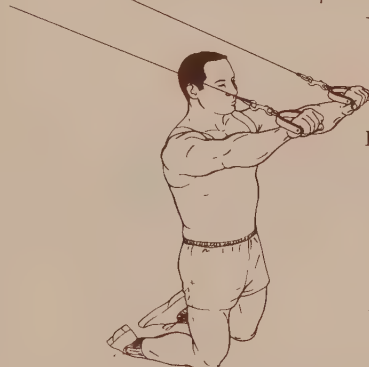


Fig. 1

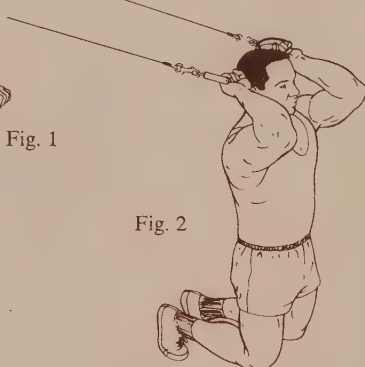


Fig. 2

STANDING FACE AWAY TWO ARM BAR TRICEPS EXTENSION ON HIGH PULLEY

Triceps

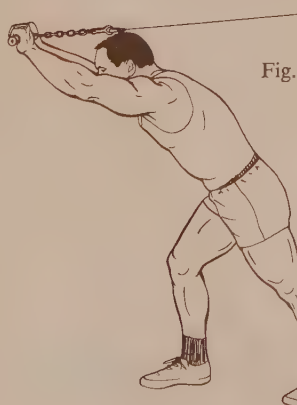


Fig. 1

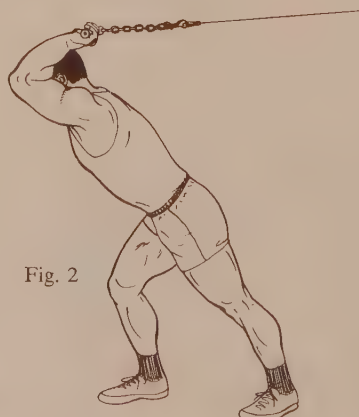


Fig. 2

throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them slightly above parallel with the floor. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain slightly above parallel during the exercise.

▲ Standing Face Away Two Arm Triceps Extension on High Pulley

Grasp the high pulley cable handles of a wall pulley with both hands as you stand in front of the machine with your back to the pulley. Stand far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you keeping them parallel with the floor. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain parallel during the exercise.

▲ Kneeling Face Away Two Arm Triceps Extension on High Pulley

Grasp the high pulley cable handles of a wall pulley machine with both hands as you stand with your back to the machine. Step forward far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise as you kneel on the floor sitting down until your leg biceps and calves. Keep your back straight and your head up. Straighten your arms out in front of you keeping them parallel with the floor. Inhale and let your lower arms back in a semicircular motion until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain parallel during the exercise.

▲ Standing Face Away Two Arm Bar Triceps Extension on High Pulley

Attach a short bar to the two top cables of a wall pulley. Grasp the bar with both hands using a palms down grip about eight inches apart. Turn away from the wall pulley and step far enough from the machine to allow you to support the weight stacks as you

straighten your arms out in front of you keeping them parallel with the floor. Drop your head down and place your chin on your chest and put one foot to the rear as you lean forward slightly for better balance. Inhale and let your lower arms back in a semicircular motion behind your head until your forearms and biceps touch. Press the weight stacks back to starting position in front of you and exhale. Remember your upper arms must remain parallel during the exercise.

▲ Seated Face Away Bent Forward Two Arm Bar Triceps Extension on High Pulley

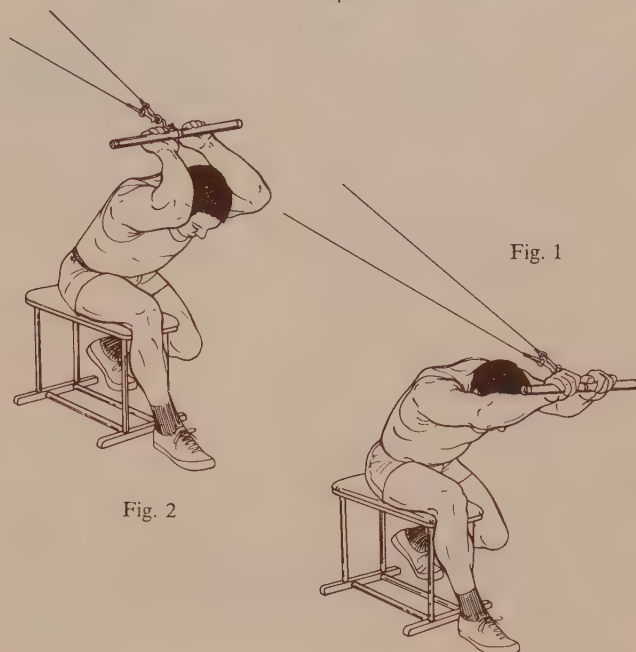
Attach a short bar to the two top cables of a wall pulley. Place a flat bench long ways in front of the pulley. Grasp the bar with both hands using a palms down grip about eight inches apart. Turn away from the wall pulley and sit on the bench far enough from the machine to allow you to support the weight stacks as you straighten your arms out in front of you keeping them parallel with the floor. Drop your head down and place your chin on your chest and lean forward slightly for better balance. Inhale and let your lower arms back in a semicircular motion behind your head until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, the upper arms must remain parallel during the exercise.

▲ Decline Face Away Two Arm Bar Triceps Extension on High Pulley

Attach a short bar to the two top cables of a wall pulley. Place a decline bench long ways in front of the pulley with the highest end towards the machine. Grasp the bar with both hands using a palms down grip about eight inches apart. Turn away from the wall pulley and lie face down with your head towards the low end of the decline bench. Have the bench far enough from the machine to allow you to support the weight stacks as you straighten your arms out in front of you keeping them slightly below parallel with the floor. Keep your head down as you inhale and let your lower arms back in a semicircular motion behind your head until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain slightly below parallel during the exercise.

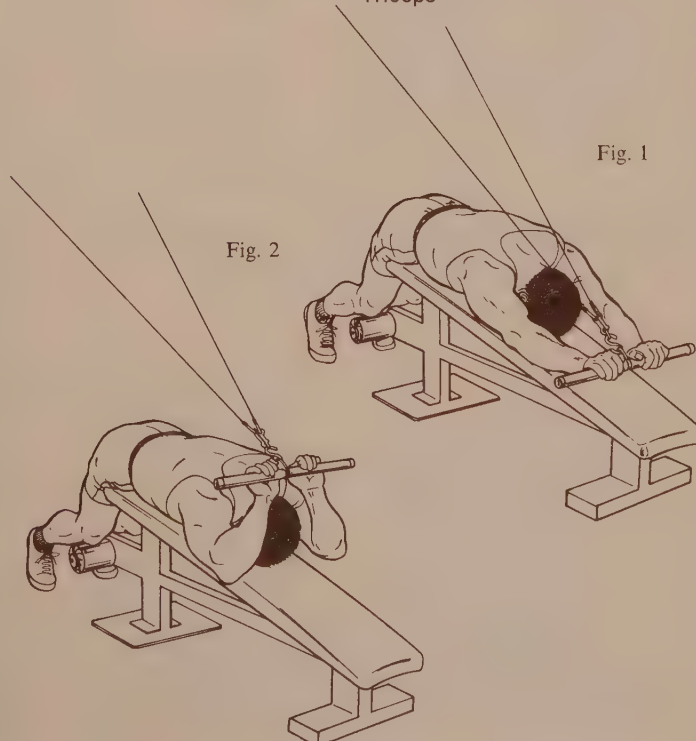
SEATED FACE AWAY BENT FORWARD TWO ARM BAR TRICEPS EXTENSION ON HIGH PULLEY

Triceps

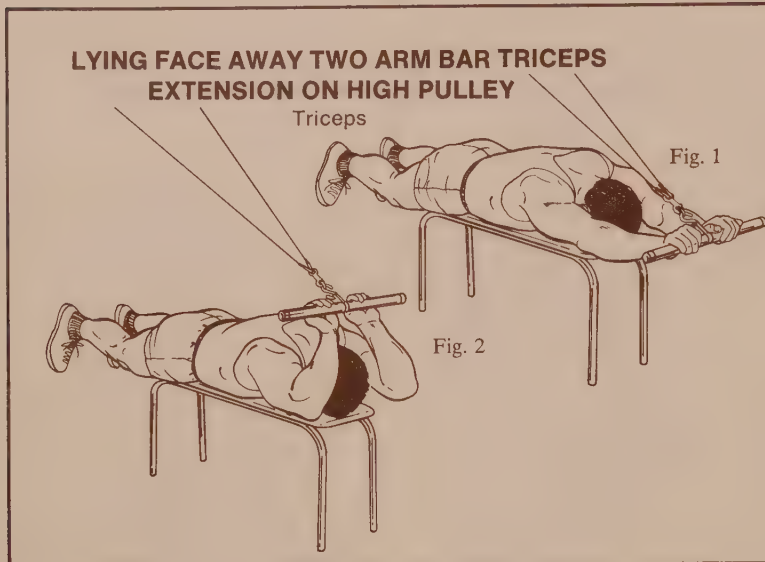


DECLINE FACE AWAY TWO ARM BAR TRICEPS EXTENSION ON HIGH PULLEY

Triceps



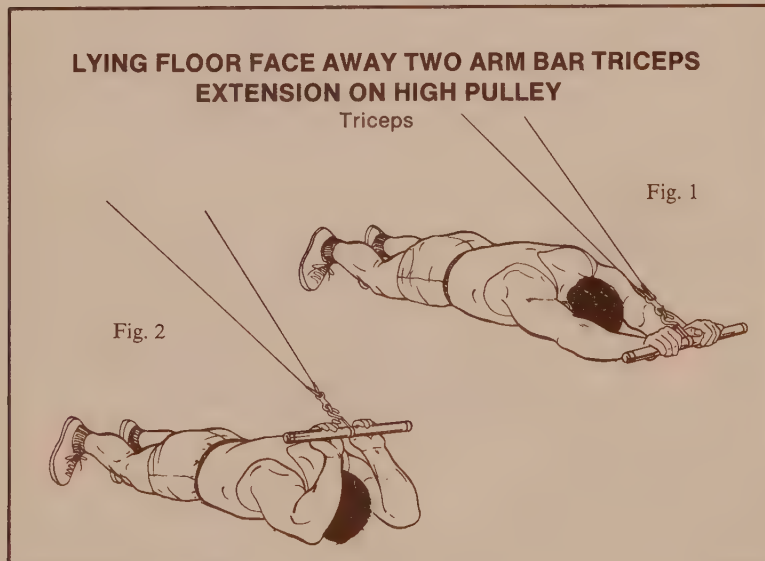
LYING FACE AWAY TWO ARM BAR TRICEPS EXTENSION ON HIGH PULLEY



▲ Lying Face Away Two Arm Bar Triceps Extension on High Pulley

Attach a short bar to the two top cables of a wall pulley. Place a flat bench long ways in front of the pulley. Grasp the bar with both hands using a palms down grip about eight inches apart. Turn away from the wall pulley and lie face down on the bench with your feet closest to the machine. Have the bench far enough from the pulley to allow your arms to support the weight stacks as you straighten your arms out in front of you, keeping them parallel with the floor. Inhale and let your lower arms back in a semi-circular motion behind your head until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain parallel during the exercise.

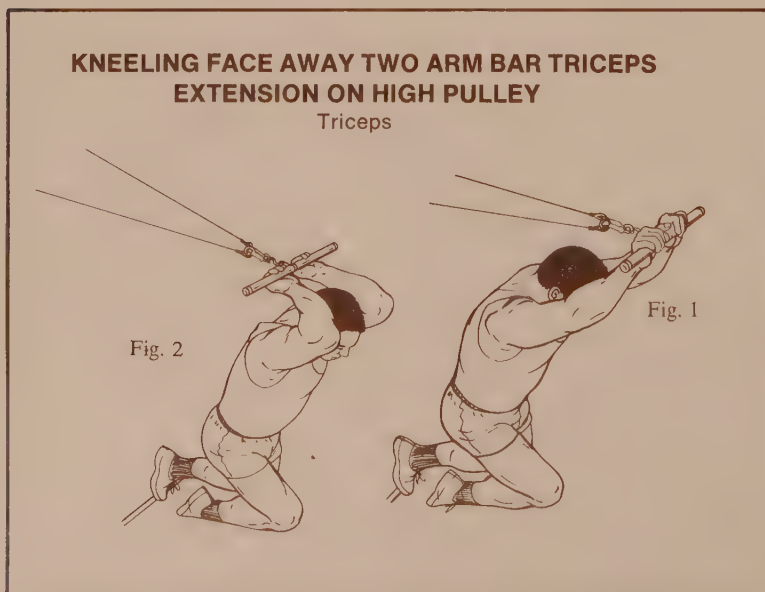
LYING FLOOR FACE AWAY TWO ARM BAR TRICEPS EXTENSION ON HIGH PULLEY



▲ Lying Floor Face Away Two Arm Bar Triceps Extension on High Pulley

Attach a short bar to the two top cables of a wall pulley. Grasp the bar with both hands using a palms down grip about eight inches apart. Turn away from the wall pulley and lie face down on the floor with your feet closest to the machine. Lie far enough from the pulley to allow your arms to support the weight stacks as you straighten your arms out in front of you, keeping them parallel with the floor. Inhale and let your lower arms back in a semicircular motion behind your head until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember, your upper arms must remain parallel during the exercise.

KNEELING FACE AWAY TWO ARM BAR TRICEPS EXTENSION ON HIGH PULLEY



▲ Kneeling Face Away Two Arm Bar Triceps Extension on High Pulley

Attach a short bar to the two top cables of a wall pulley. Grasp the bar with both hands using a palms down grip about eight inches apart as you stand with your back to the machine. Step forward far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise as you kneel on the floor sitting down until your leg biceps and calves touch. Bend forward at the waist and keep your head down with your chin on your chest. Straighten your arms out in front of you keeping them parallel with the floor. Inhale and bring your lower arms back in a semicircular motion over your head and

back until your forearms and biceps touch. Press the weight stacks back to starting position and exhale. Remember your upper arms must remain parallel during the exercise.

▲ Standing Face Away One Arm Triceps Extension on High Pulley

Grasp a high pulley cable handle with your right hand and turn away from the wall pulley. Step out far enough from the machine to allow your right arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Straighten your right arm out in front of you keeping it parallel with the floor. Inhale and let your lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember your upper arm must remain parallel during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions.

▲ Incline Face Away One Arm Triceps Extension on High Pulley

Place an incline bench long ways in front of a wall pulley with the lowest end towards the machine. Have the incline bench far enough from the machine to allow your right arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Grasp a high pulley cable handle with your right hand and turn away from the wall pulley. Lie face down on the incline bench. Straighten your right arm out in front of you, keeping it parallel with the floor. Inhale and let your lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember, your upper arm must remain parallel during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions.

▲ Seated Face Away One Arm Triceps Extension on High Pulley

Place a flat bench long ways in front of a wall pulley. Have the bench far enough

STANDING FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps



Fig. 2

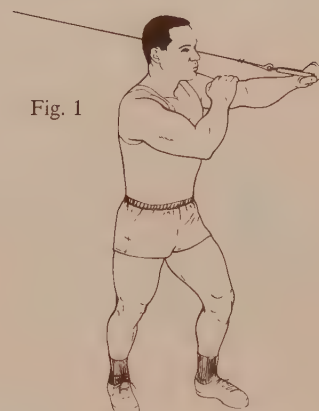


Fig. 1

INCLINE FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

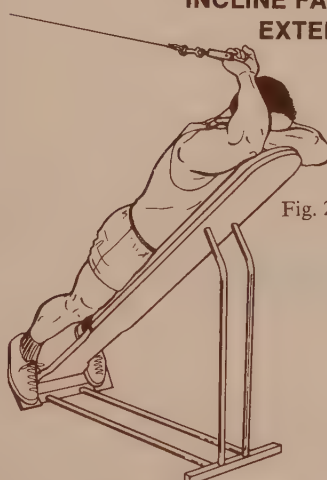


Fig. 2

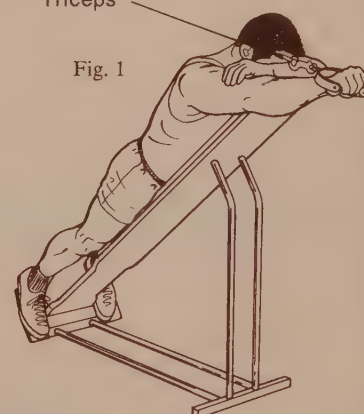


Fig. 1

SEATED FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

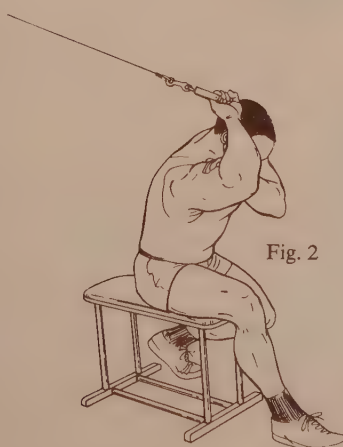


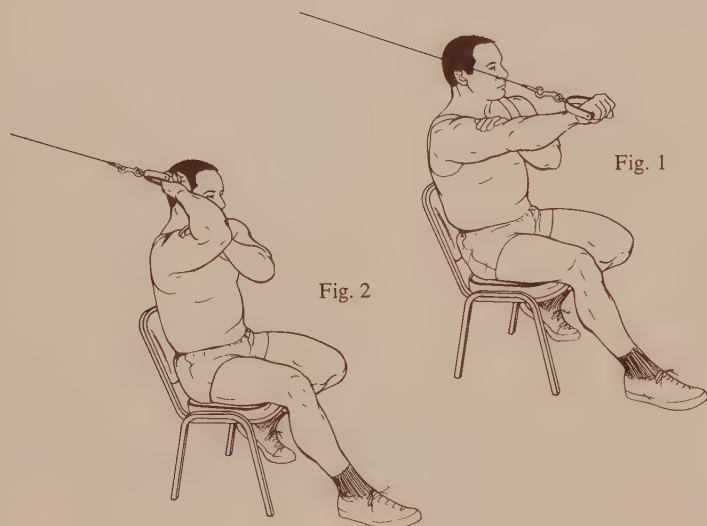
Fig. 2



Fig. 1

SEATED BACK SUPPORTED FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps



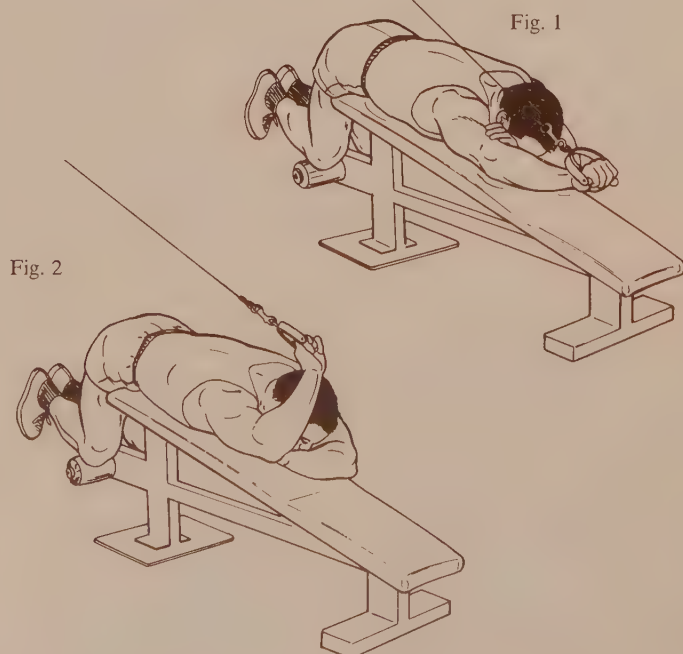
from the machine to allow your right arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Grasp a high pulley cable handle with your right hand and turn away from the wall pulley. Sit at the end of the flat bench with your back facing the machine. Straighten your right arm out in front of you, keeping it parallel with the floor. Inhale and let your lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember, your upper arm must remain parallel during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions.

▲ Seated Back Supported Face Away One Arm Triceps Extension on High Pulley

Place a chair in front of a wall pulley with the back of the chair facing the machine. Have the chair far enough from the pulley to allow your right arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Grasp a high pulley cable handle with your right hand and turn away from the wall pulley. Sit on the chair with your back against the support, your head up and feet planted firmly on the floor. Straighten your right arm out in front of you, keeping it parallel with the floor. Inhale and let your lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember, your upper arm must remain parallel during the exercise. Do the prescribed number of repetitions on the right side and then change position to the left side doing the same number of repetitions.

DECLINE FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps



▲ Decline Face Away One Arm Triceps Extension on High Pulley

Place a decline bench long ways in front of a wall pulley with the highest end towards the machine. Grasp the high pulley cable handle with your right hand and lie face down on the decline bench. Have the decline bench far enough from the machine to allow your arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Straighten your right arm out in front of

you, keeping it slightly below parallel with the floor. Inhale and let your lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember, your upper arm must remain slightly below parallel during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions.

▲ Lying Face Away One Arm Triceps Extension on High Pulley

Place a flat bench long ways in front of a wall pulley. Have the bench far enough from the machine to allow your arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Grasp the high pulley cable handle with your right hand and lie face down on the bench. Straighten your right arm out in front of you, keeping it parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember, your upper arm must remain parallel during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions.

▲ Lying Floor Face Away One Arm Triceps Extension on High Pulley

Grasp the high pulley cable handle of a wall pulley with your right hand and turn away from the machine and lie on the floor in front of the pulley with your feet closest to the machine. Lie far enough away from the pulley to allow your arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Straighten your right arm out in front of you, keeping it parallel with the floor. Inhale and let your lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember, your upper arm must remain parallel during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions.

LYING FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

Fig. 1

Fig. 2

LYING FLOOR FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

Fig. 1

Fig. 2

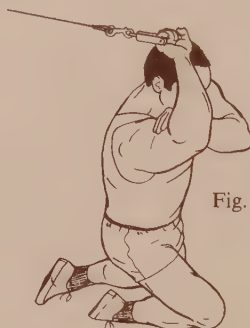
KNEELING FACE AWAY ONE ARM TRICEPS EXTENSION ON HIGH PULLEY

Triceps

Fig. 1



Fig. 2



SEATED BACK SUPPORTED FACE AWAY ALTERNATED TRICEPS EXTENSION ON HIGH PULLEY

Triceps

right



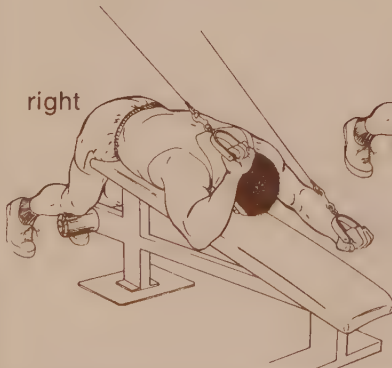
left



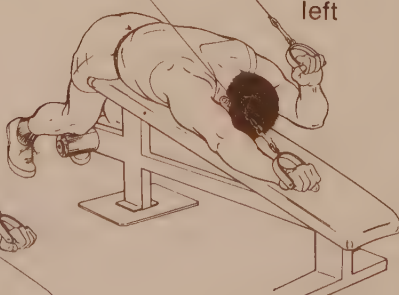
DECLINE FACE AWAY ALTERNATED TRICEPS EXTENSION ON HIGH PULLEY

Triceps

right



left



▲ Kneeling Face Away One Arm Triceps Extension on High Pulley

Grasp the high pulley cable handle of a wall pulley with your right hand and turn away from the machine and kneel on the floor in front of the pulley with your back towards the machine. Kneel down far enough from the machine to allow your arm to support the weight stack throughout the full range of motion needed to properly perform the exercise. Straighten your right arm out in front of you keeping it parallel with the floor. Inhale and let your lower arm back in a semicircular motion until your forearm and biceps touch. Press the weight stack back to starting position in front of you and exhale. Remember, your upper arm must remain parallel during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side doing the same number of repetitions.

▲ Seated Back Supported Face Away Alternated Triceps Extension on High Pulley

Place a chair with a back rest in front of a wall pulley with the rest closest to the machine. Grasp the high pulley cable handles with both hands and turn away from the wall pulley. Have the chair far enough from the machine to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Sit on the chair and keep your feet about sixteen inches apart and planted firmly on the floor. Straighten your arms out in front of you keeping them parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. As you commence to press your right arm back to starting position let your left arm back using a similar semicircular motion until the forearm and the biceps touch. As the right hand is pressing the weight out the left hand is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.

▲ Decline Face Away Alternated Triceps Extension on High Pulley

Place a decline bench long ways in front of a wall pulley with the highest end towards the machine. Grasp the high pulley cable handles with both hands and lie face down on the decline bench. Have the decline bench far enough from the machine to al-

low your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you keeping them slightly below parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. As you commence to press your right arm back to starting position let your left arm back using a similar semicircular motion until the forearm and the biceps touch. As the right hand is pressing the weight out the left hand is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.

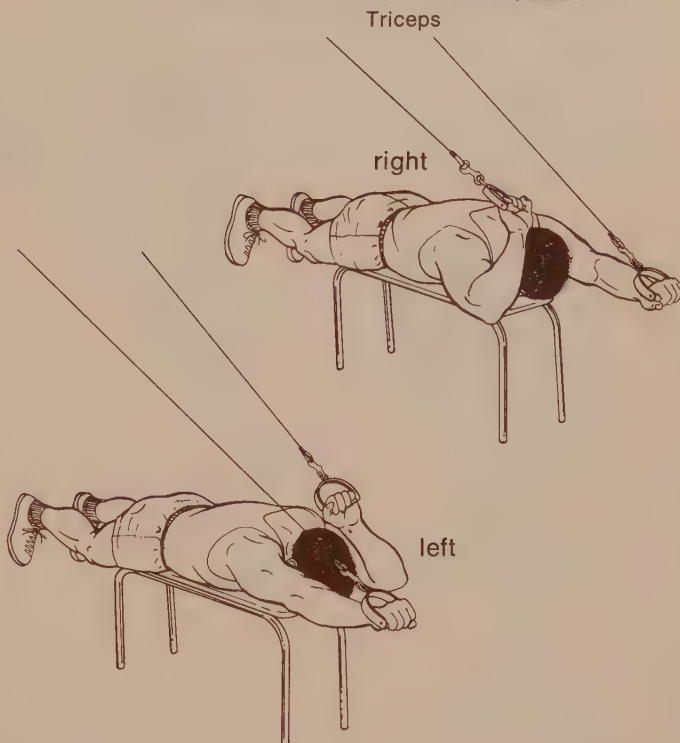
▲ Lying Face Away Alternated Triceps Extension on High Pulley

Place a flat bench long ways in front of a wall pulley. Grasp the high pulley cable handles with both hands and lie face down on the bench with your feet closest to the machine. Have the bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them slightly above parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. As you commence to press your right arm back to starting position, let your left arm back, using a similar semicircular motion until the forearm and the biceps touch. As the right hand is pressing the weight out, the left hand is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.

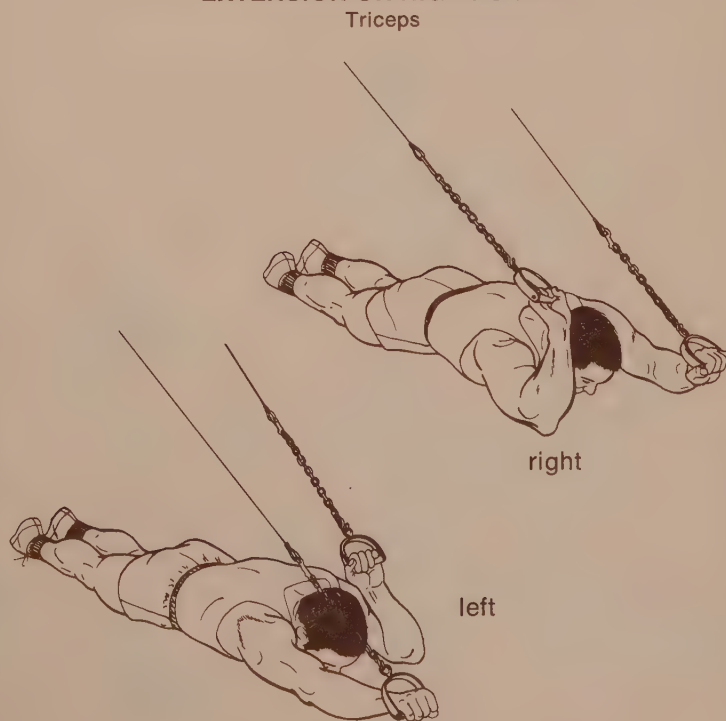
▲ Lying Floor Face Away Alternated Triceps Extension on High Pulley

Grasp the high pulley cable handles of a wall pulley with both hands and lie on the floor in a prone position in front of the pulley with your feet closest to the machine. Lie back far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them slightly above parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. As you com-

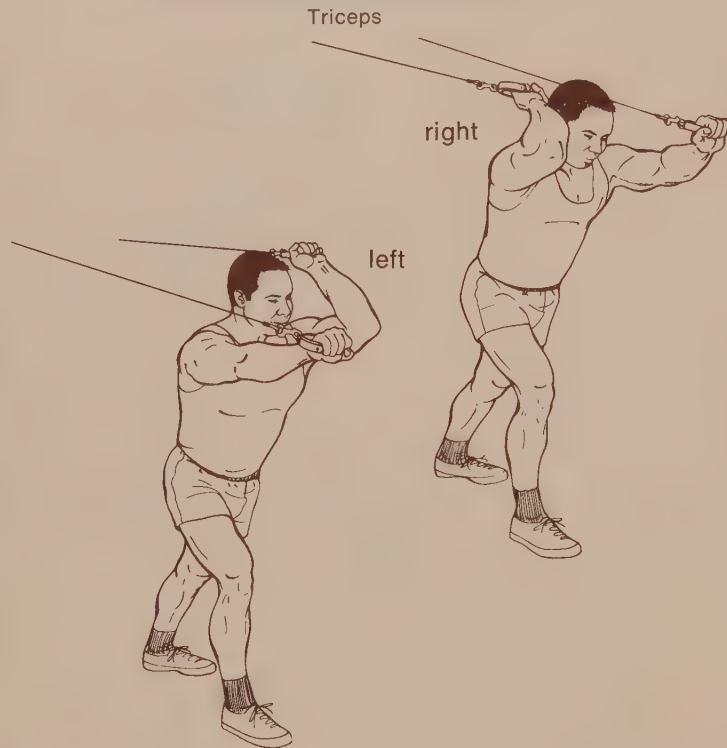
LYING FACE AWAY ALTERNATED TRICEPS EXTENSION ON HIGH PULLEY



LYING FLOOR FACE AWAY ALTERNATED TRICEPS EXTENSION ON HIGH PULLEY



STANDING FACE AWAY ALTERNATED TRICEPS EXTENSION ON HIGH PULLEY

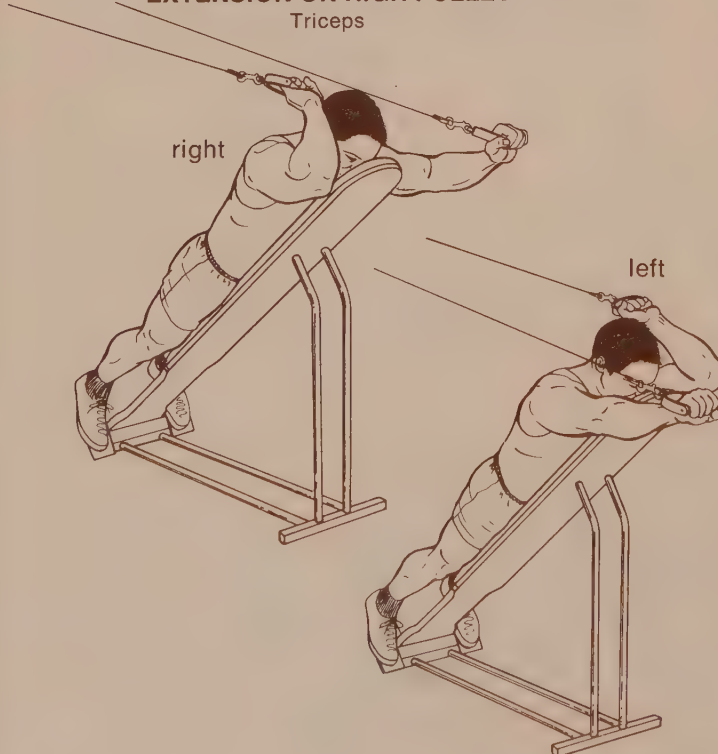


mence to press your right arm back to starting position, let your left arm back using a similar semicircular motion until the forearm and biceps touch. As the right hand is pressing the weight out, the left hand is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.

▲ Standing Face Away Alternated Triceps Extension on High Pulley

Grasp the high pulley cable handles of a wall pulley with both hands as you stand in front of the machine with your back to the pulley. Stand back far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. As you commence to press your right arm back to starting position, let your left arm back using a similar semicircular motion until the forearm and biceps touch. As the right hand is pressing the weight out, the left hand is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.

INCLINE FACE AWAY ALTERNATED TRICEPS EXTENSION ON HIGH PULLEY

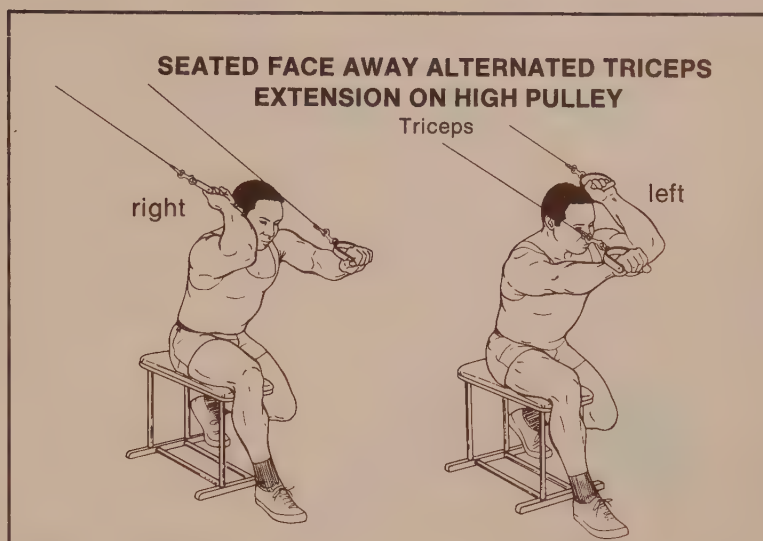


▲ Incline Face Away Alternated Triceps Extension on High Pulley

Place an incline bench long ways in front of a wall pulley with the lowest end towards the machine. Grasp the high pulley cable handles with both hands and lie on the incline bench with your back towards the machine. Have the incline bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. As you commence to press your right arm back to starting position, let your left arm back using a similar semicircular motion until the forearm and the biceps touch. As the right hand is pressing the weight out the left hand is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.

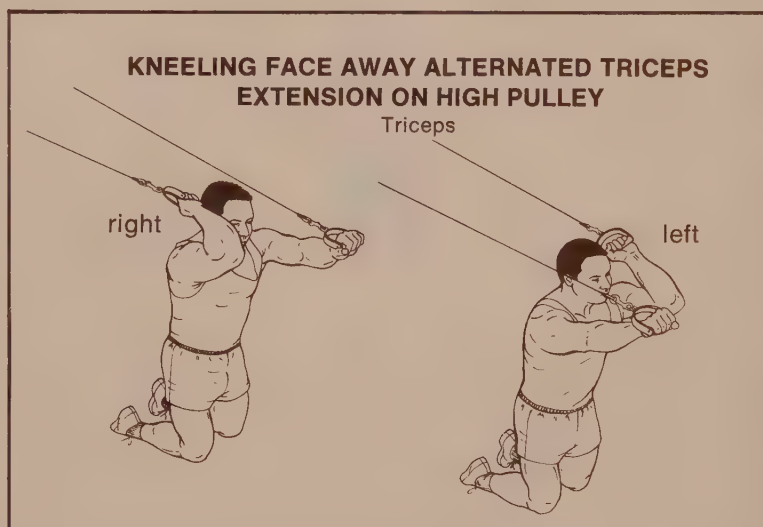
▲ Seated Face Away Alternated Triceps Extension on High Pulley

Place a flat bench long ways in front of a wall pulley. Grasp the high pulley cable handles with both hands and sit at the end of the bench with your back towards the machine. Have the bench far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise. Straighten your arms out in front of you, keeping them parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until your forearm and biceps touch. As you commence to press your right arm back to starting position let your left arm back using a semicircular motion until the forearm and the biceps touch. As the right hand is pressing the weight out, the left hand is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.

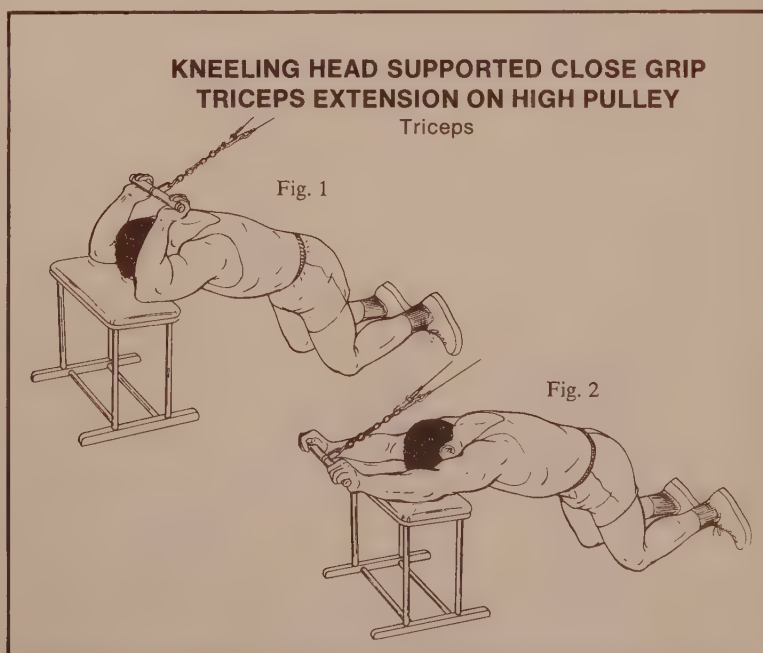


▲ Kneeling Face Away Alternated Triceps Extension on High Pulley

Grasp the high pulley cable handles of a wall pulley machine with both hands as you stand with your back to the machine. Step forward far enough from the pulley to allow your arms to support the weight stacks throughout the full range of motion needed to properly perform the exercise as you kneel on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Straighten your arms out in front of you keeping them parallel with the floor. Inhale and let your right lower arm back in a semicircular motion until the forearm and biceps touch. As you commence to press your right arm back to starting position let your left arm back using a similar semicircular motion until the forearm and biceps touch. As the right arm is pressing the weight out the left arm is letting the weight back. Inhale as your right arm is exercising and exhale as your left arm is exercising.



KNEELING HEAD SUPPORTED CLOSE GRIP TRICEPS EXTENSION ON HIGH PULLEY



▲ Kneeling Head Supported Close Grip Triceps Extension on High Pulley

Place a bench side ways in front of a high pulley. Attach a bar to the pulley cable and grasp the bar with a palms down grip about six inches apart while you face away

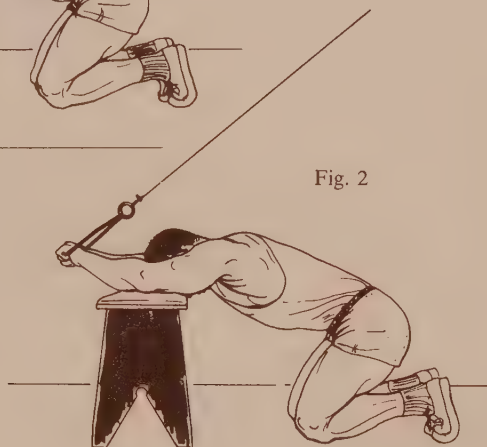
KNEELING HEAD SUPPORTED MEDIUM GRIP TRICEPS EXTENSION ON HIGH PULLEY

Triceps

Fig. 1



Fig. 2



from the pulley. Kneel down on your knees and lower legs and place your head and the front portions of your upper arms on the bench. Keep your upper arms in close to the sides of your head as you inhale and then press the cable straight out in a semi-circular motion until your elbows are locked out and your arms are parallel to the floor. Slowly return the cable to starting position and exhale.

▲ Kneeling Head Supported Medium Grip Triceps Extension on High Pulley

Place a bench side ways in front of a high pulley. Attach a bar to the pulley cable and grasp the bar with a palms down grip about fourteen inches apart while you face away from the pulley. Kneel down on your knees and lower legs and place your head and the front portions of your upper arms on the bench. Keep your upper arms in close to the sides of your head as you inhale and then press the cable straight out in a semi-circular motion until your elbows are locked out and your arms are parallel to the floor. Slowly return the cable to starting position and exhale.

FREE HAND TRICEPS EXTENSION

Triceps

Fig. 1

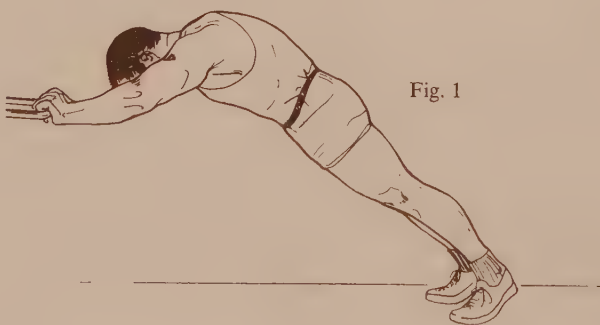
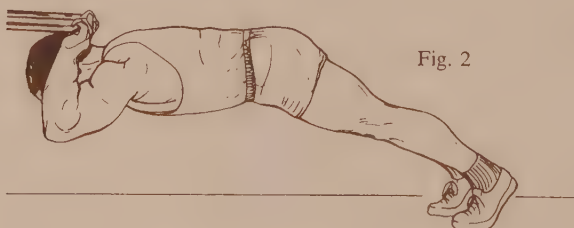


Fig. 2



■ Free Hand Triceps Extension

Use some object that is slightly lower than waist height that will enable you to keep your hands around the object using a palms down grip about twelve inches apart. Step back and assume the position shown in illustration #1. Keep your elbows in close to the sides of your head and lower yourself until your head is between your hands and forearms and the biceps are compressed. Use your triceps to press your body back to starting position and exhale.

Introduction to Biceps Section

Two of the most important muscle groups of the arm are the biceps and triceps. Their functions vary primarily and secondarily to each other as the secondary muscle opposes the primary muscle's action. But their purpose is basically the same, to support the shoulder and elbow, therefore, affecting the forearm.

The biceps are the primary muscle to produce flexion of the elbow. It also contributes to shoulder flexion and lower arm or forearm supination. Supination is a combined action of both the biceps and the supinator muscle of the forearm. Weakness may cause an inability to perform some basic functions such as feeding oneself, shoveling towards oneself, or even scooping with a spoon or hand shovel. A kill or driveshot in handball, badminton, racquetball, tennis, possibly volleyball, backward drive, throwing a curve ball in baseball, or even an underhand pitch may all be directly affected by instability or weakness of these muscles.

The biceps aids the shoulder in flexion as it extends across both shoulder and elbow. It also plays an important role in inward rotation of the shoulder. This movement is of extreme importance in the forehand strike in tennis, some shots in badminton, squash, handball and other racquet sports, overarm throwing, rope climbing, etc.

As the biceps becomes antagonistic, or works against extension of the elbow, a phenomenon known as skill is created. Skill becomes a controlled response between the primary and secondary muscles and, if the proper amount of relaxation is permitted with movement, a smooth and efficient action results. This response is known as neuromuscular coordination, or a skilled response. This principle is true for any muscles in opposition.

Weakness of the biceps or injury may result in an inability to flex the forearm or shoulder, therefore, resulting in a greater compensatory muscle development of the secondary muscle group; in this case the triceps, which could lead to joint instability and tendon or ligament injury. The most common complaint in this situation could usually be recognized as an inability to perform such basic movements as combing the hair, eating or even brushing the teeth.

Injury to the biceps may result from trauma to the elbow or shoulder. Muscle tears, contusions, hematomas and strains are all common and are good reasons why the athlete should prepare himself with weight training programming in order to enhance muscle balance and strengthen the elbow, arm and shoulder before contemplating serious competition.

Biceps section



From any angle or pose Bill assumes, size, symmetry, proportions were all uniform. A gift from God and hard work.

[illegible]

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

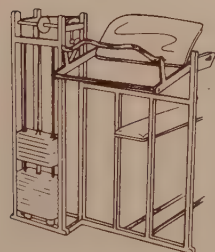
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

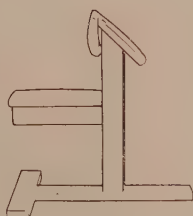
Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

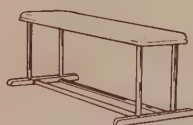
EQUIPMENT NEEDED FOR BICEPS SECTION



Nautilus Type Curl Machine



Preacher Bench



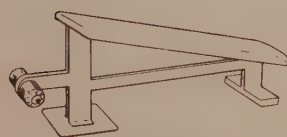
Flat Bench



Chair



Low Preacher Bench



Decline Bench



Easy Curl Bar



Dumbbells



Stool



Short Pulley Bar

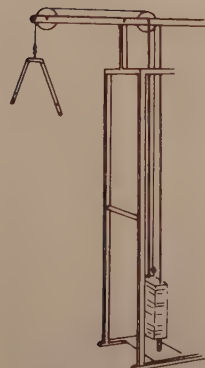
High Wall Pulley



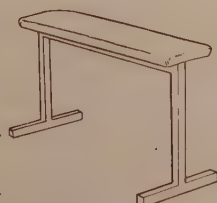
Barbell



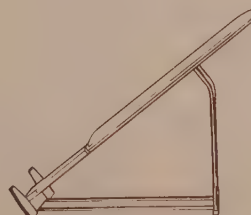
Long Pulley Bar



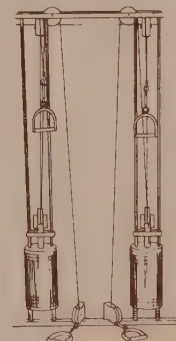
Lat Machine



High Flat Bench



Incline Bench



Pulley Handles

Low Wall Pulley

SEATED CLOSE GRIP BARBELL CURL

Outer biceps



Fig. 1

Fig. 2

SEATED MEDIUM GRIP BARBELL CURL

Main biceps

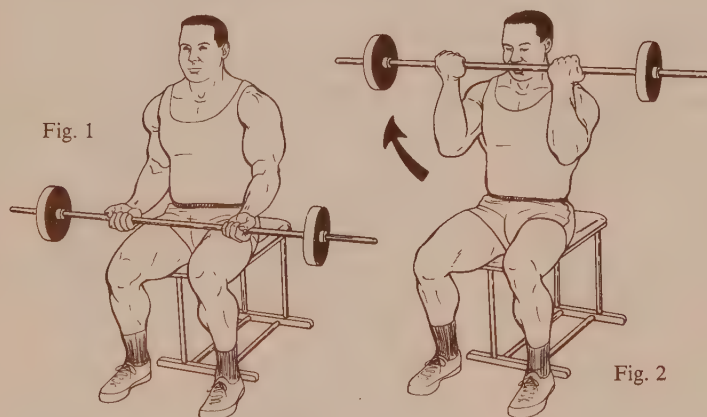


Fig. 1

Fig. 2

STANDING CLOSE GRIP BARBELL CHEAT CURL

Outer biceps and lower back

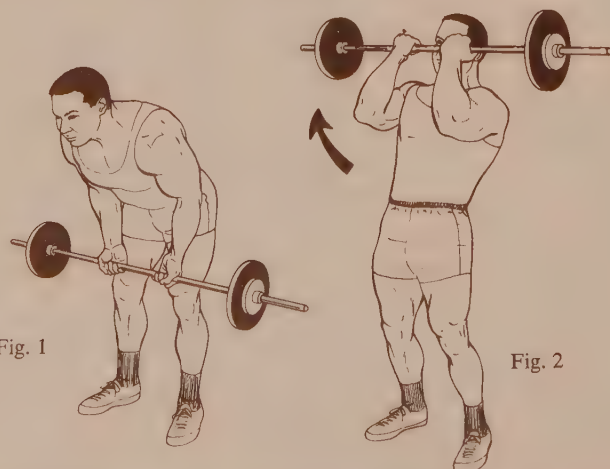


Fig. 1

Fig. 2

▲ Seated Close Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about eight inches wide. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Medium Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about sixteen inches wide. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the back of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Seated Wide Grip Barbell Curl

Inner biceps

Grasp a barbell with both hands using a palms up grip about thirty inches wide. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Standing Close Grip Barbell Cheat Curl

Hold a barbell with both hands using a palms up grip about twelve inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Medium Grip Barbell Cheat Curl

Hold a barbell with both hands using a palms up grip about eighteen inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Wide Grip Barbell Cheat Curl

Hold a barbell with both hands using a palms up grip about twenty-six inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

▲ Seated Incline Close Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about eight inches wide. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

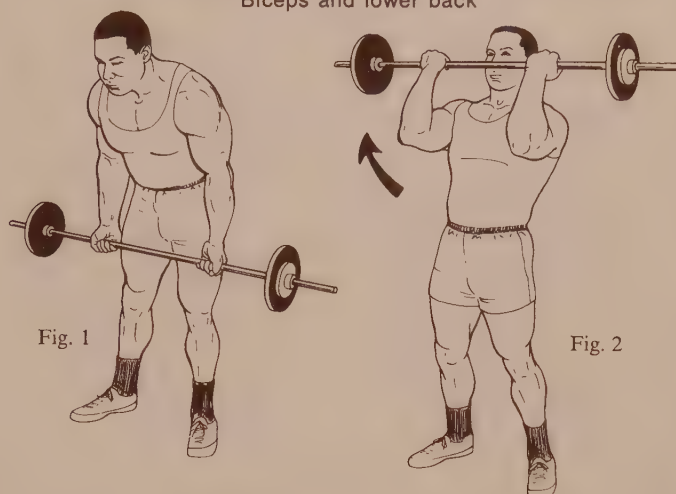
■ Seated Incline Wide Grip Barbell Curl

Inner biceps

Grasp a barbell with both hands using a palms up grip about thirty inches wide. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

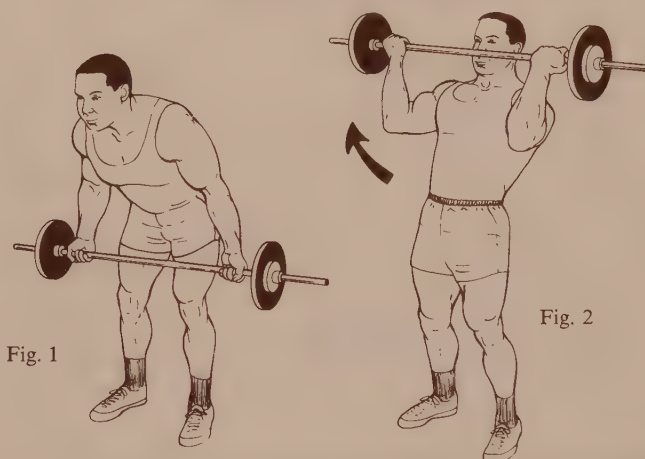
STANDING MEDIUM GRIP BARBELL CHEAT CURL

Biceps and lower back



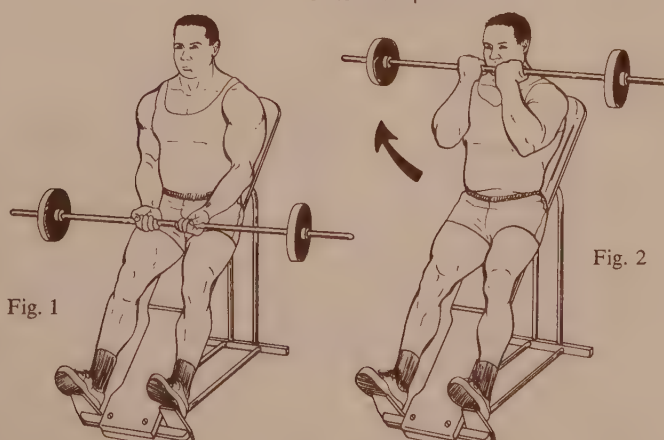
STANDING WIDE GRIP BARBELL CHEAT CURL

Inner biceps and lower back



SEATED INCLINE CLOSE GRIP BARBELL CURL

Outer biceps



SEATED INCLINE MEDIUM GRIP BARBELL CURL

Main biceps

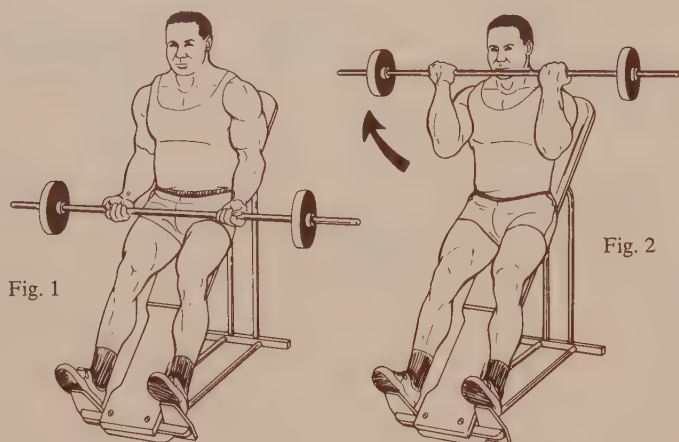


Fig. 1

Fig. 2

KNEELING CLOSE GRIP BARBELL CURL

Outer biceps

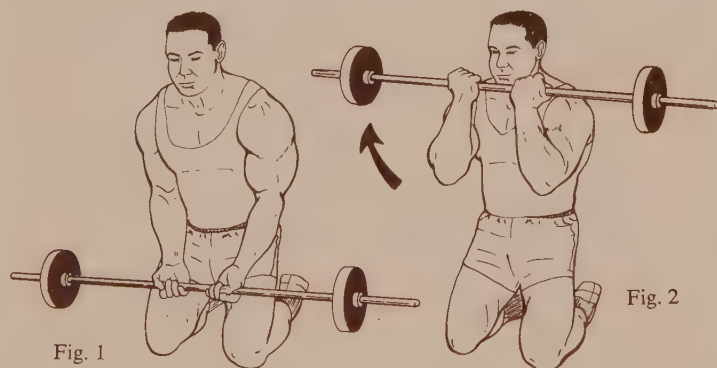


Fig. 1

Fig. 2

KNEELING WIDE GRIP BARBELL CURL

Inner biceps

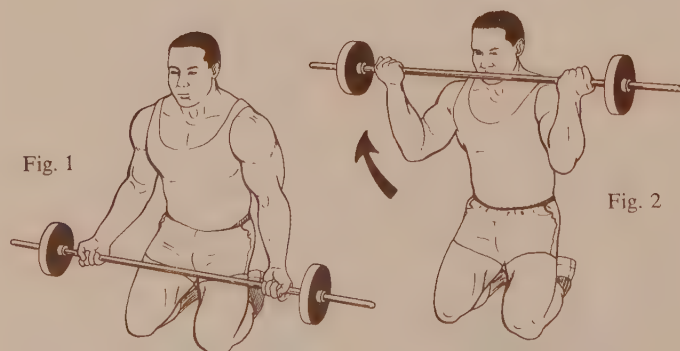


Fig. 1

Fig. 2

▲ Seated Incline Medium Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about sixteen inches wide. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the back of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Kneeling Close Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about eight inches wide. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Kneeling Medium Grip Barbell Curl

Main biceps

Grasp a barbell with both hands using a palms up grip about sixteen inches wide. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the back of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Kneeling Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about thirty inches wide. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Back Supported Close Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about eight inches wide. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

SEATED BACK SUPPORTED CLOSE GRIP BARBELL CURL

Outer biceps



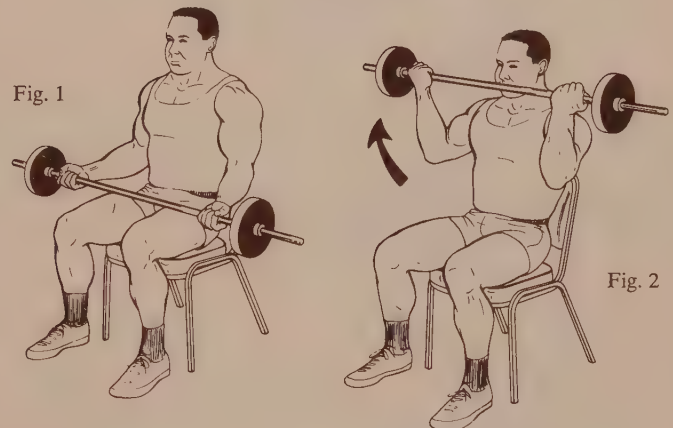
▲ Seated Back Supported Medium Grip Barbell Curl

Main biceps

Grasp a barbell with both hands using a palms up grip about sixteen inches wide. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the back of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

SEATED BACK SUPPORTED WIDE GRIP BARBELL CURL

Inner biceps



■ Seated Back Supported Wide Grip Barbell Curl

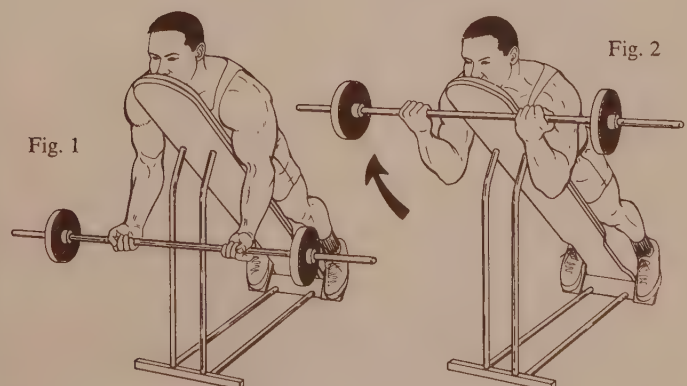
Grasp a barbell with both hands using a palms up grip about thirty inches wide. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Incline Face Forward Medium Grip Barbell Curl

Lie face forward on an incline bench and grasp a barbell with both hands using a palms up grip about sixteen inches wide. With the barbell held at arm's length hanging straight down from your shoulders, inhale and curl the barbell upward in a semicircular motion until your biceps and forearms touch. Keep your upper arms vertical with the floor as much as possible. Return the weight to starting position and exhale.

INCLINE FACE FORWARD MEDIUM GRIP BARBELL CURL

Biceps



INCLINE CLOSE GRIP RUN THE RACK BARBELL CURL

Outer biceps

Fig. 1

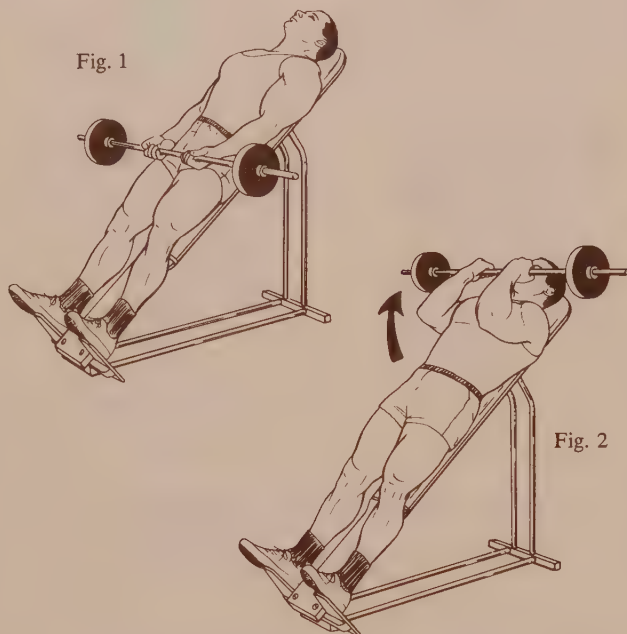


Fig. 2

★ Incline Close Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms up grip about eight inches apart. Lie back on an incline bench with the barbell at arm's length resting against your upper thighs. Inhale and curl the bar up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight until you are unable to perform one repetition.

★ Incline Medium Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms up grip about sixteen inches apart. Lie back on an incline bench with the barbell at arm's length resting against your upper thighs. Inhale and curl the bar up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

INCLINE MEDIUM GRIP RUN THE RACK BARBELL CURL

Biceps

Fig. 1

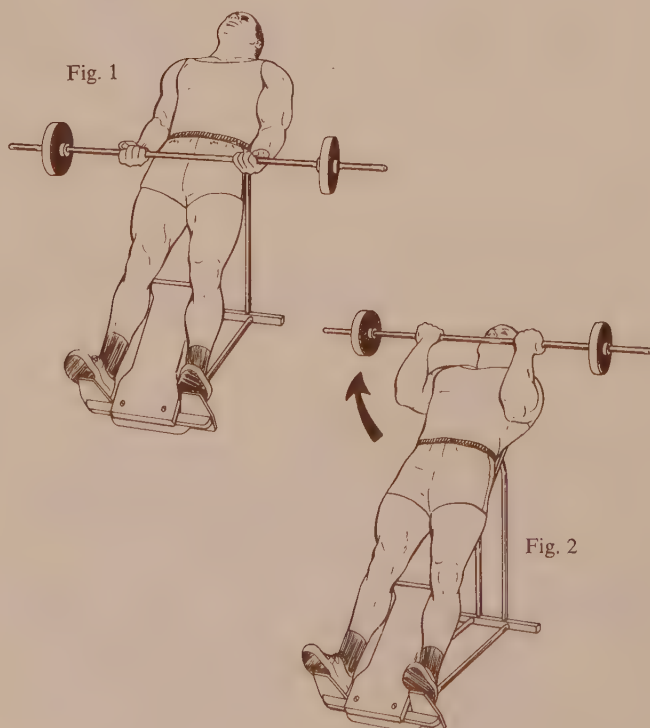


Fig. 2

★ Incline Wide Grip Run The Rack Barbell Curl

Inner biceps

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms up grip about twenty-four inches apart. Lie back on an incline bench with the barbell at arm's length resting against your upper thighs. Inhale and curl the bar up to shoul-

der height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

▲ Seated Incline Reverse Close Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about eight inches wide. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Incline Reverse Medium Grip Barbell Curl

Main biceps and forearms

Grasp a barbell with both hands using a palms down grip about sixteen inches wide. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the front of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Seated Incline Reverse Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about thirty inches wide. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

SEATED INCLINE REVERSE CLOSE GRIP BARBELL CURL

Outer biceps and forearms

Fig. 1

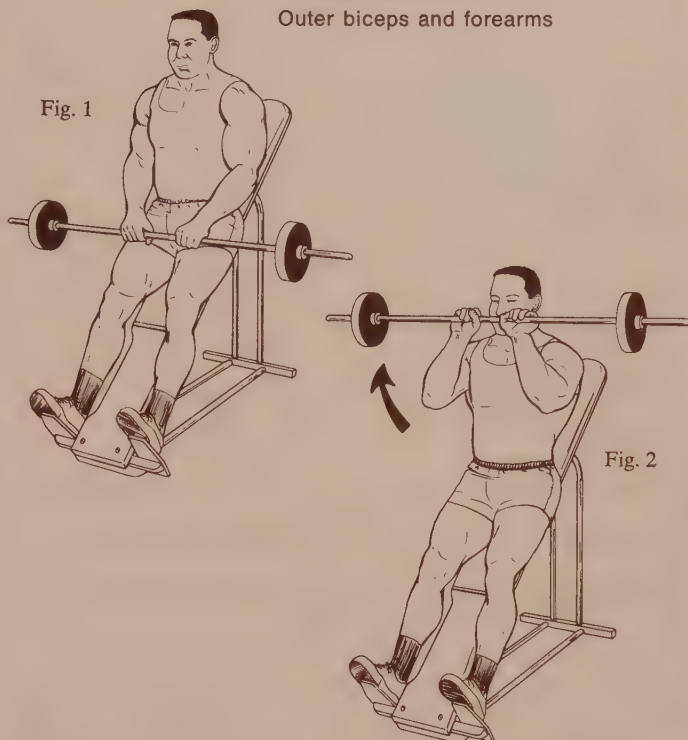


Fig. 2

SEATED INCLINE REVERSE WIDE GRIP BARBELL CURL

Inner biceps and forearms

Fig. 1

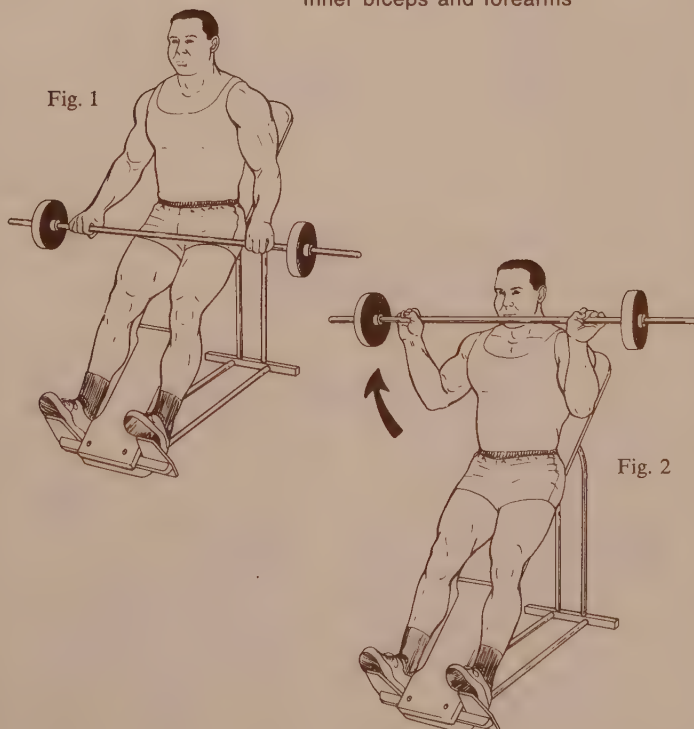


Fig. 2

INCLINE REVERSE CLOSE GRIP RUN THE RACK BARBELL CURL

Outer biceps and forearms

Fig. 1

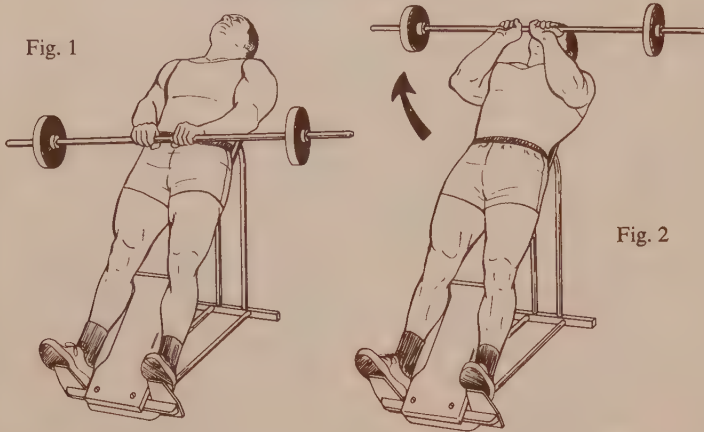
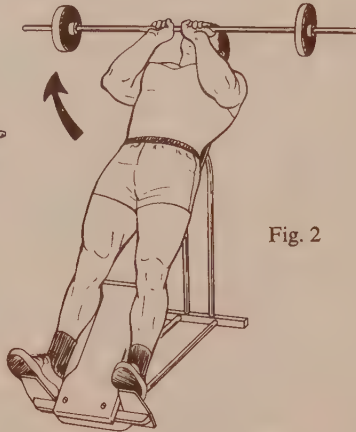


Fig. 2



INCLINE REVERSE MEDIUM GRIP RUN THE RACK BARBELL CURL

Biceps and forearms

Fig. 1

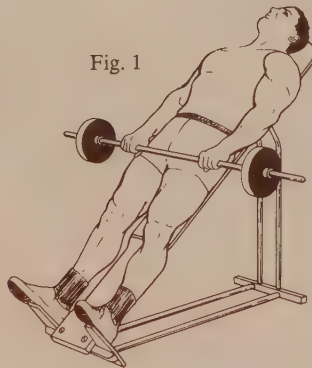
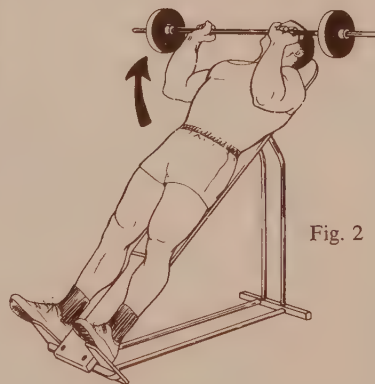


Fig. 2



SEATED REVERSE CLOSE GRIP BARBELL CURL

Outer biceps and forearms

Fig. 1

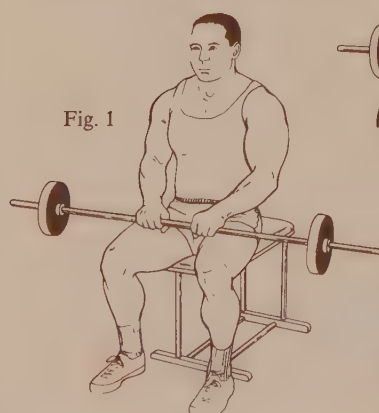
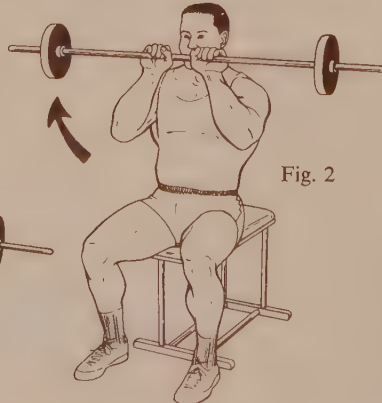


Fig. 2



★ Incline Reverse Close Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms down grip about eight inches apart. Lie back on the incline bench with the barbell at arm's length resting on your upper thighs. Inhale and curl the barbell up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

★ Incline Reverse Medium Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms down grip about sixteen inches apart. Lie back on the incline bench with the barbell at arm's length resting on your upper thighs. Inhale and curl the barbell up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

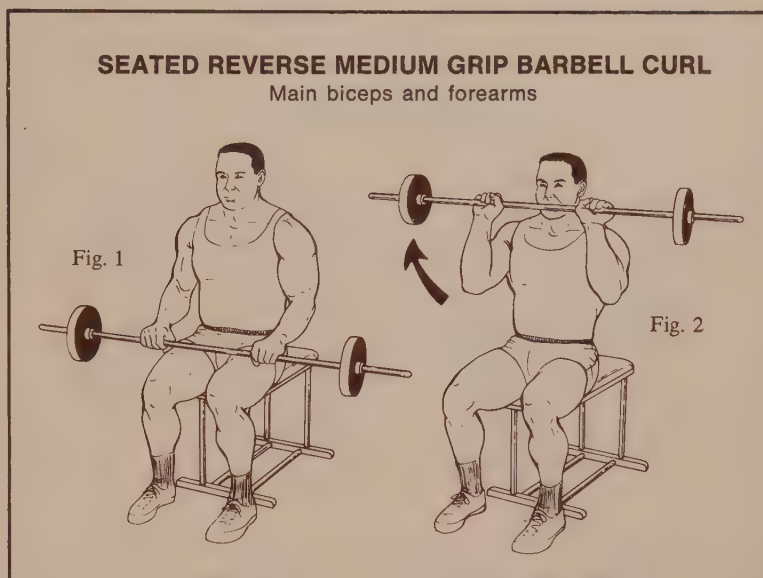
▲ Seated Reverse Close Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about eight inches wide. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin.

Return the weight to starting position using a similar semicircular path and exhale.

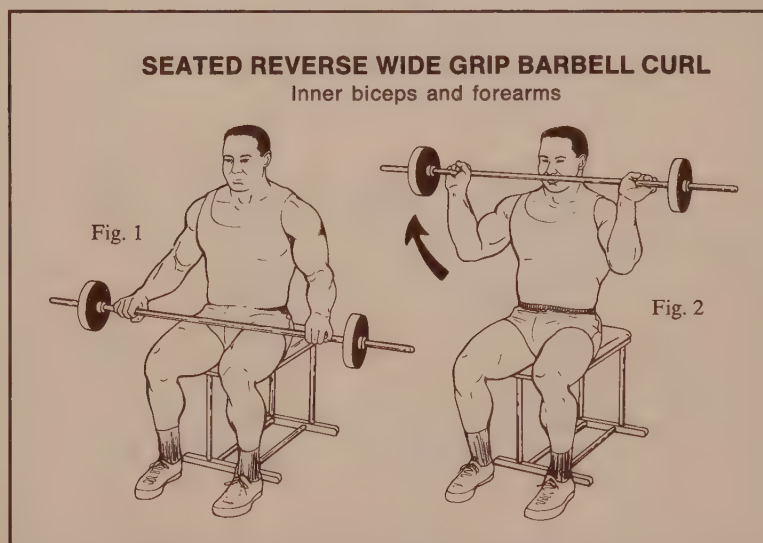
▲ Seated Reverse Medium Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about sixteen inches wide. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the front of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.



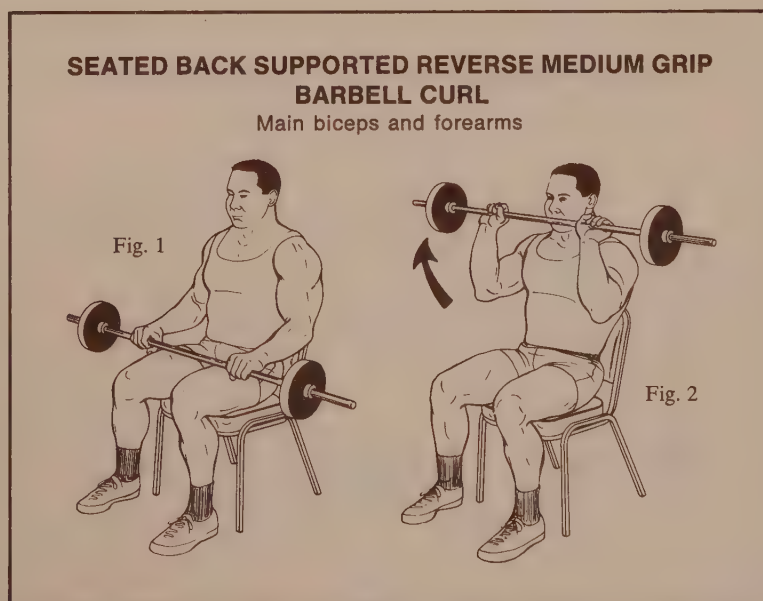
■ Seated Reverse Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about thirty inches wide. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.



▲ Seated Back Supported Reverse Medium Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about sixteen inches wide. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the front of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.



▲ Seated Back Supported Reverse Close Grip Barbell Curl

Outer biceps and forearms

Grasp a barbell with both hands using a palms down grip about eight inches wide. Sit on a chair with your back against the

SEATED BACK SUPPORTED REVERSE WIDE GRIP BARBELL CURL

Inner biceps and forearms

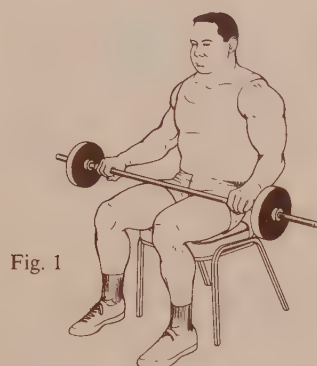


Fig. 1

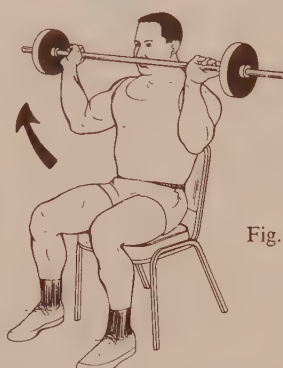


Fig. 2

support, head up and feet planted firmly on the floor. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Seated Back Supported Reverse Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about thirty inches wide. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

KNEELING REVERSE CLOSE GRIP BARBELL CURL

Outer biceps and forearms

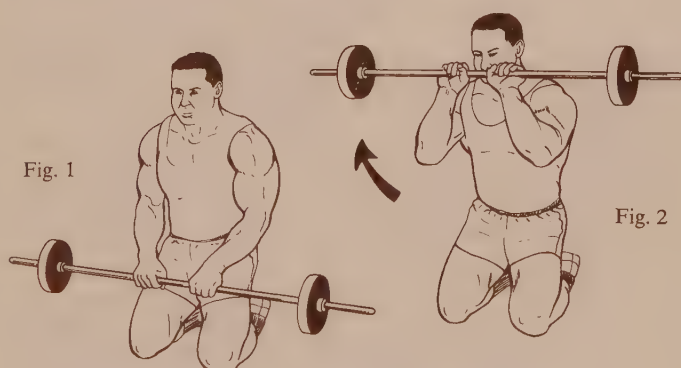


Fig. 1

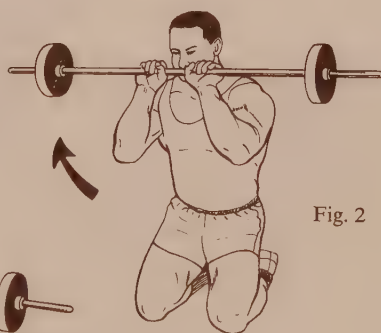


Fig. 2

▲ Kneeling Reverse Close Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about eight inches wide. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

KNEELING REVERSE MEDIUM GRIP BARBELL CURL

Main biceps and forearms

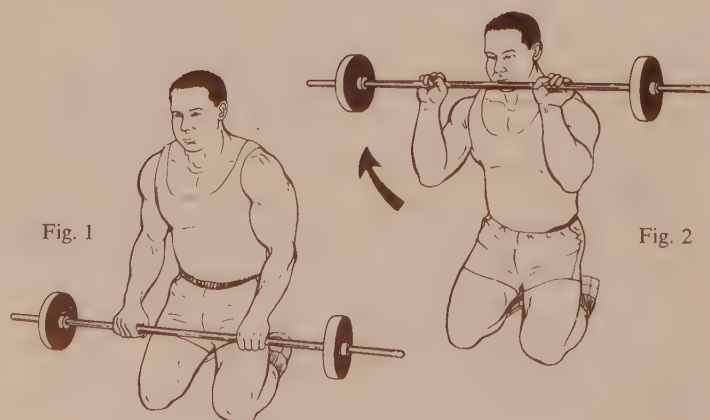


Fig. 1

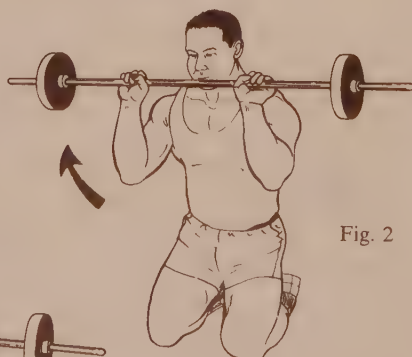


Fig. 2

▲ Kneeling Reverse Medium Grip Barbell Curl

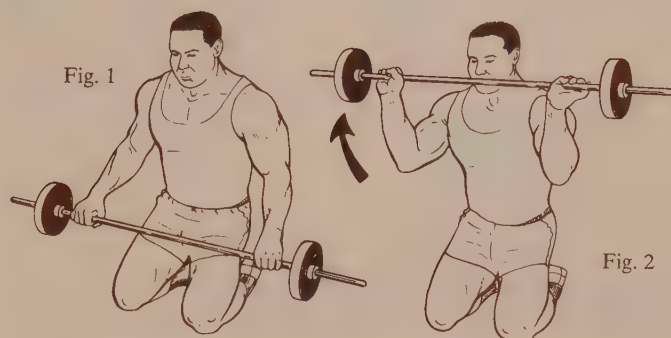
Grasp a barbell with both hands using a palms down grip about sixteen inches wide. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the front of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semicircular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Kneeling Reverse Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about thirty inches wide. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the barbell on your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the bar upward in a semi-circular motion until your biceps and forearms touch and the barbell is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

KNEELING REVERSE WIDE GRIP BARBELL CURL

Inner biceps and forearms

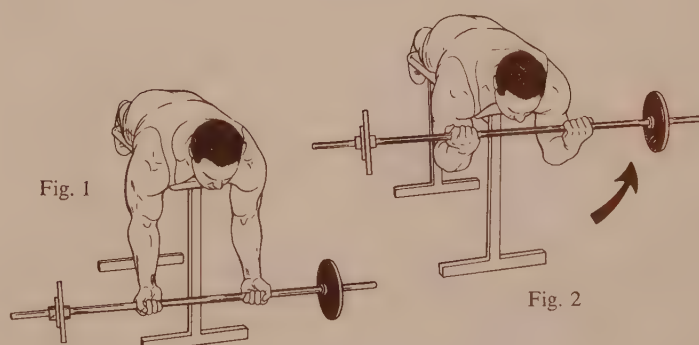


▲ Lying Face Forward Medium Grip Barbell Curl on High Flat Bench

Lie face forward on a tall bench with your head and upper body about down to your upper pectorals over the end of the bench. Grasp a barbell with a palms up grip about sixteen inches wide. With the barbell held at arm's length hanging straight down from your shoulders, inhale and curl the barbell upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms vertical with the floor as much as possible and try to keep your upper arms from moving outward as you curl. Return the weight to starting position using a similar path and exhale.

LYING FACE FORWARD MEDIUM GRIP BARBELL CURL ON HIGH FLAT BENCH

Biceps

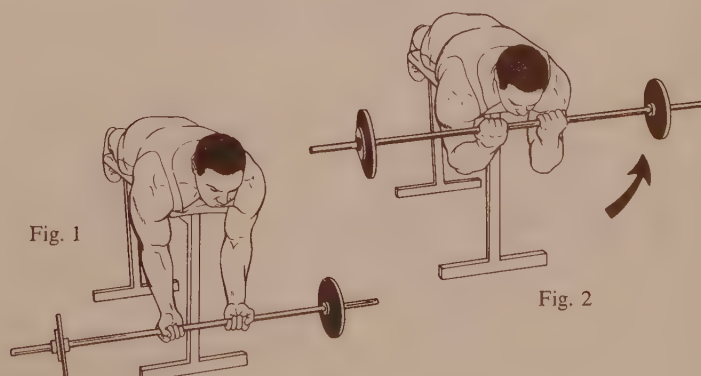


▲ Lying Face Forward Close Grip Barbell Curl on High Flat Bench

Lie face forward on a tall flat bench with your head and upper body about down to your upper pectorals over the end of the bench. Grasp a barbell with a palms up grip about twelve inches wide. With the barbell held at arm's length hanging straight down from your shoulders, inhale and curl the barbell upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms vertical with the floor as much as possible and try to keep your upper arms from moving outward as you curl. Return the weight to starting position using a similar path and exhale.

LYING FACE FORWARD CLOSE GRIP BARBELL CURL ON HIGH FLAT BENCH

Outer biceps



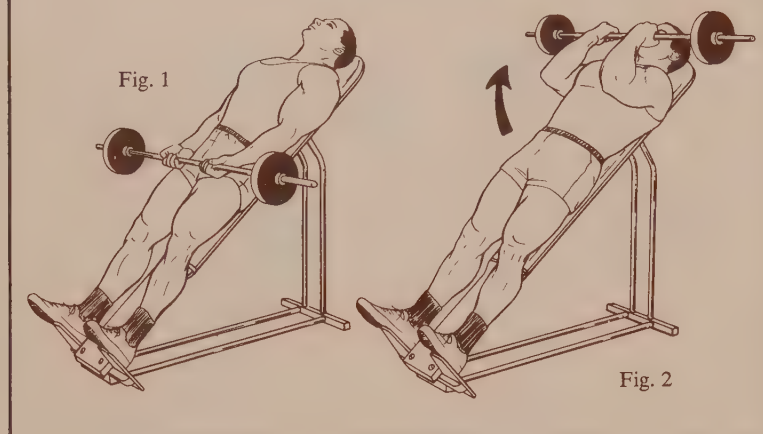
▲ Lying Face Forward Wide Grip Barbell Curl on High Flat Bench

Inner biceps.

Lie face forward on a tall bench with your head and upper body about down to your upper pectorals over the end of the bench.

INCLINE CLOSE GRIP BARBELL CURL

Outer biceps



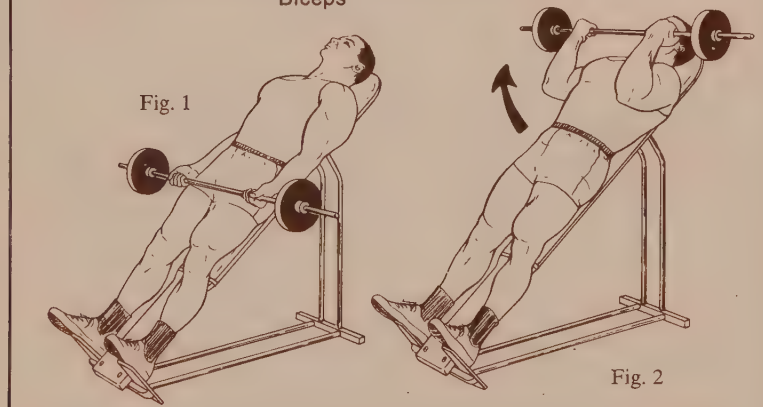
Grasp a barbell with a palms up grip about twenty-four inches wide. With the barbell held at arm's length hanging straight down from your shoulders, inhale and curl the barbell upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms vertical with the floor as much as possible and try to keep your upper arms from moving outward as you curl. Return the weight to starting position using a similar path and exhale.

▲ Incline Close Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about twelve inches wide. Lie back on an incline bench with the barbell held at arm's length in front of you and resting on your upper thighs. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

INCLINE MEDIUM GRIP BARBELL CURL

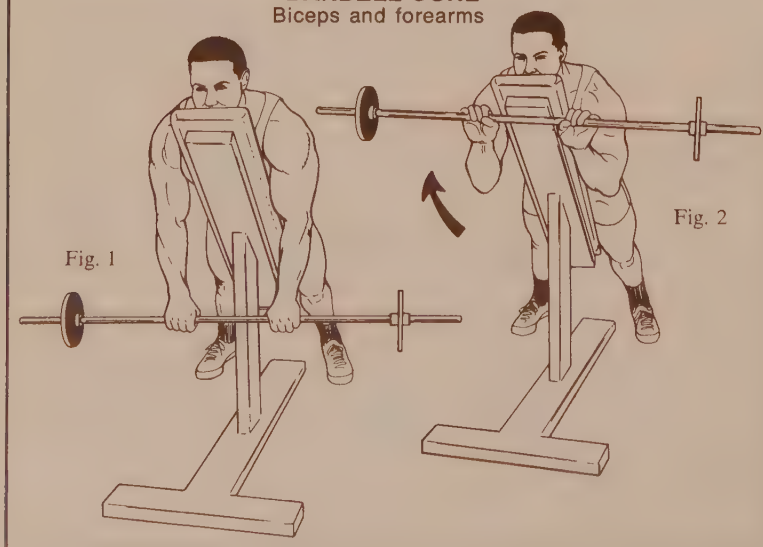
Biceps

**▲ Incline Medium Grip Barbell Curl**

Grasp a barbell with both hands using a palms up grip about sixteen inches wide. Lie back on an incline bench with the barbell held at arm's length in front of you and resting on your upper thighs. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

INCLINE FACE FORWARD REVERSE MEDIUM GRIP BARBELL CURL

Biceps and forearms

**■ Incline Wide Grip Barbell Curl**

Inner biceps

Grasp a barbell with both hands using a palms up grip about twenty-four inches wide. Lie back on an incline bench with the barbell held at arm's length in front of you and resting on your upper thighs. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch. Keep your arms close to your sides. Return the weight to starting position and exhale.

■ Incline Face Forward Reverse Medium Grip Barbell Curl

Lie face forward on an incline bench and grasp a barbell with hands using a palms down grip about sixteen inches wide. With the barbell held at arm's length hanging

straight down from your shoulders, inhale and curl the barbell upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms vertical with the floor as much as possible. Return the weight to starting position and exhale.

▲ Incline Reverse Close Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about twelve inches apart. Lie back on an incline bench with the barbell held at arm's length in front of you and resting on your upper thighs. Inhale and curl the bar upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

▲ Incline Reverse Medium Grip Barbell Curl

Forearms and biceps

Grasp a barbell with both hands using a palms down grip about sixteen inches apart. Lie back on an incline bench with the barbell held at arm's length in front of you and resting on your upper thighs. Inhale and curl the bar upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

■ Incline Reverse Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about twenty-four inches wide. Lie back on an incline bench with the barbell held at arm's length in front of you and resting on your upper thighs. Inhale and curl the bar upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

■ Lying Reverse Close Grip Barbell Curl on High Flat Bench

Lie face forward on a tall bench with your head and upper body about down to your pectorals over the end of the bench. Grasp a barbell with both hands using a palms down grip about twelve inches wide. With the barbell held at arm's length hanging straight down from your shoulders, inhale

INCLINE REVERSE CLOSE GRIP BARBELL CURL

Outer biceps and forearms

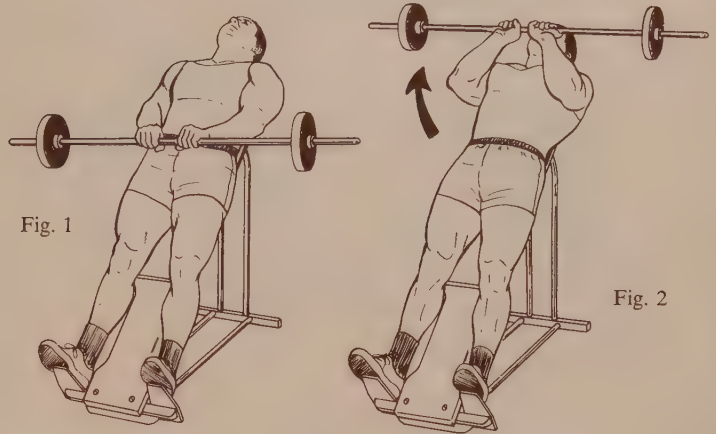


Fig. 1

Fig. 2

INCLINE REVERSE WIDE GRIP BARBELL CURL

Inner biceps and forearms

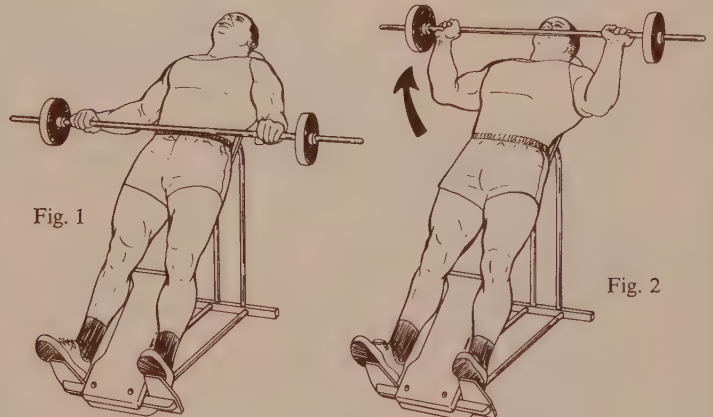


Fig. 1

Fig. 2

LYING REVERSE CLOSE GRIP BARBELL CURL ON HIGH FLAT BENCH

Outer biceps and forearms

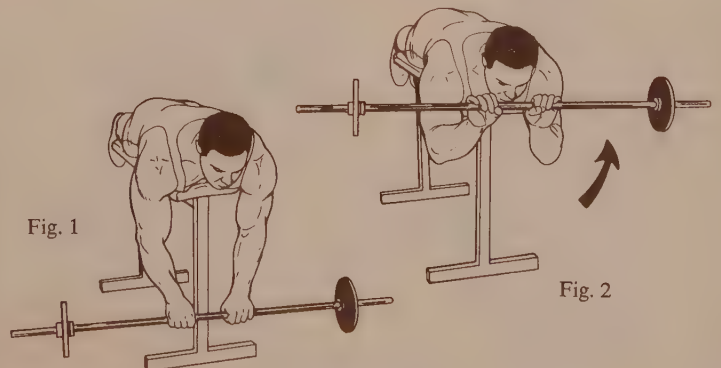
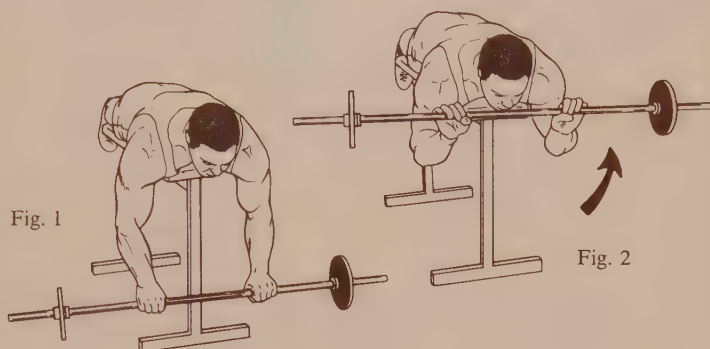


Fig. 1

Fig. 2

LYING REVERSE MEDIUM GRIP BARBELL CURL ON HIGH FLAT BENCH

Biceps and forearms



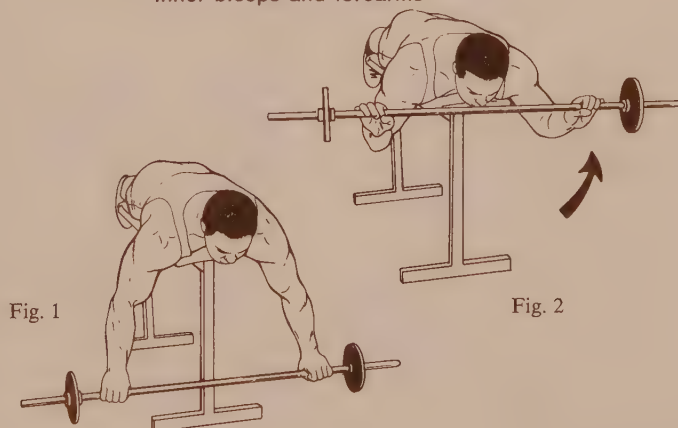
and curl the barbell upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms vertical with the floor as much as possible and try to keep your upper arms from moving outward as you curl. Return the weight to starting position using a similar path and exhale.

■ Lying Reverse Medium Grip Barbell Curl on High Flat Bench

Lie face forward on a tall bench with your head and upper body about down to your upper pectorals over the end of the bench. Grasp a barbell with both hands using a palms down grip about sixteen inches wide. With the barbell held at arm's length hanging straight down from your shoulders, inhale and curl the barbell upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms vertical with the floor as much as possible and try to keep your upper arms from moving outward as you curl. Return the weight to starting position using a similar path and exhale.

LYING REVERSE WIDE GRIP BARBELL CURL ON HIGH FLAT BENCH

Inner biceps and forearms

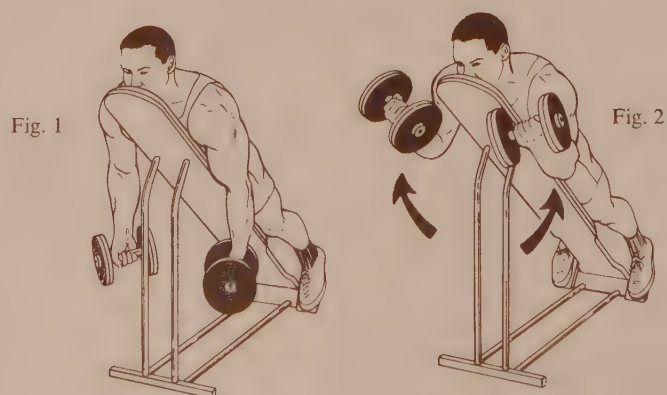


■ Lying Reverse Wide Grip Barbell Curl on High Flat Bench

Lie face forward on a tall bench with your head and upper body about down to your upper pectorals over the end of the bench. Grasp a barbell with both hands, using a palms down grip about twenty-four inches wide. With the barbell held at arm's length hanging straight down from your shoulders, inhale and curl the barbell upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms vertical with the floor as much as possible and try to keep your upper arms from moving outward as you curl. Return the weight to starting position and exhale.

INCLINE FACE FORWARD TWO DUMBBELL CURL

Biceps



■ Incline Face Forward Two Dumbbell Curl

Lie face forward on an incline bench and grasp a dumbbell in each hand using a palms up grip. With the dumbbells held at arm's length hanging straight down from your shoulders, palms facing up, inhale and curl the dumbbells upward in a semicircular motion as you turn your palms upward. Keep your palms facing upward throughout the exercise until you are nearing the end of the repetition and again turn them in facing each other. Curl the dumbbells upward until your biceps and forearms are

touching. Be sure to keep your upper arms in a vertical position as much as possible. Exhale as you return to starting position.

■ Incline Face Forward Alternated Dumbbell Curl

Lie face forward on an incline bench and grasp a dumbbell in each hand using a palms up grip. With the dumbbells held at arm's length hanging straight down from your shoulders, palms facing up, inhale and curl the dumbbell in your right hand upward in a semicircular motion as you turn your palm upward. Keep your palm facing upward throughout the exercise until you are nearing the end of the repetition and again turn it in facing the other palm. Curl the dumbbell upward until your biceps and forearm touch. Be sure to keep your upper arm in a vertical position as much as possible. Exhale and return to starting position. Now curl the dumbbell in your left hand in a similar manner. Continue going from right arm to left arm until the prescribed number of repetitions are completed.

★ Standing 4x4x4 Dumbbell Curl

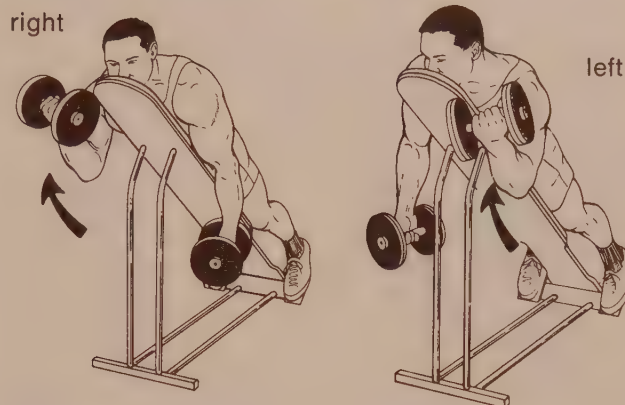
Grasp a dumbbell in each hand and stand erect with your back straight, head up and feet about sixteen inches apart. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thigh, then turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Perform four complete repetitions in this manner and at the end of your fourth repetition keep the dumbbells at the top position and perform four partial repetitions from the top half way down or until your lower arms are parallel with the floor. On your fourth repetition in this manner, lower the dumbbells to arm's length and perform four partial repetitions from the bottom half way up or until your lower arms are parallel with the floor. A total of twelve repetitions will complete one set.

★ Incline 4x4x4 Dumbbell Curl

Grasp a dumbbell in each hand and lie on an incline bench with your head down and feet on the foot pads. With the dumbbells

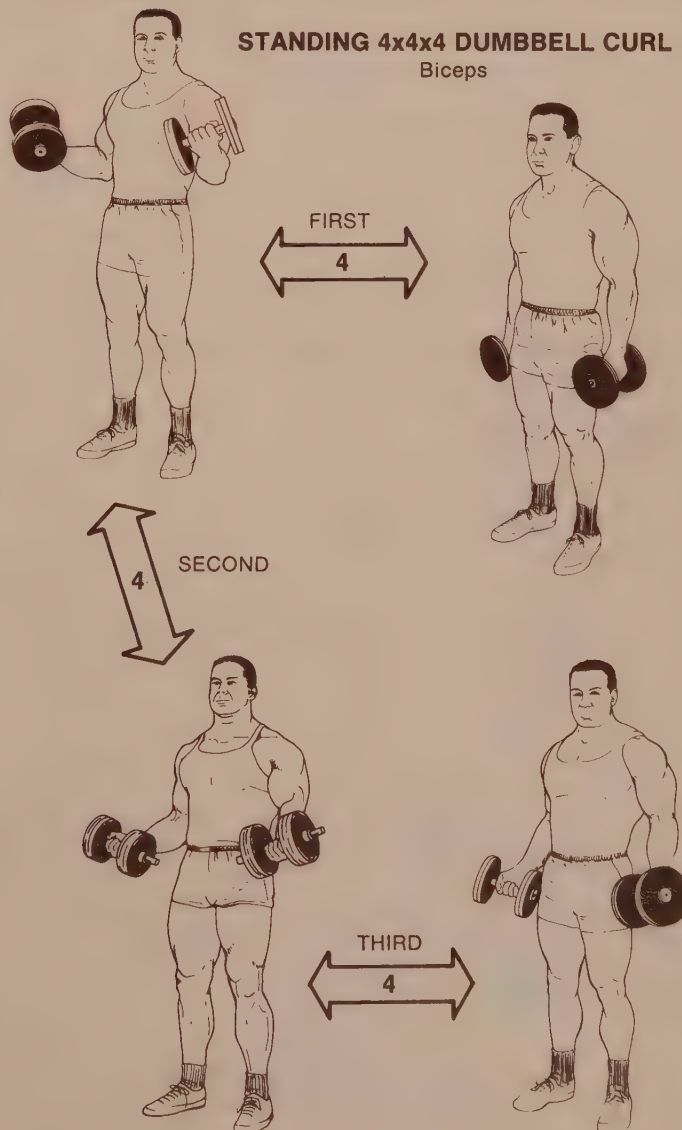
INCLINE FACE FORWARD ALTERNATED DUMBBELL CURL

Biceps



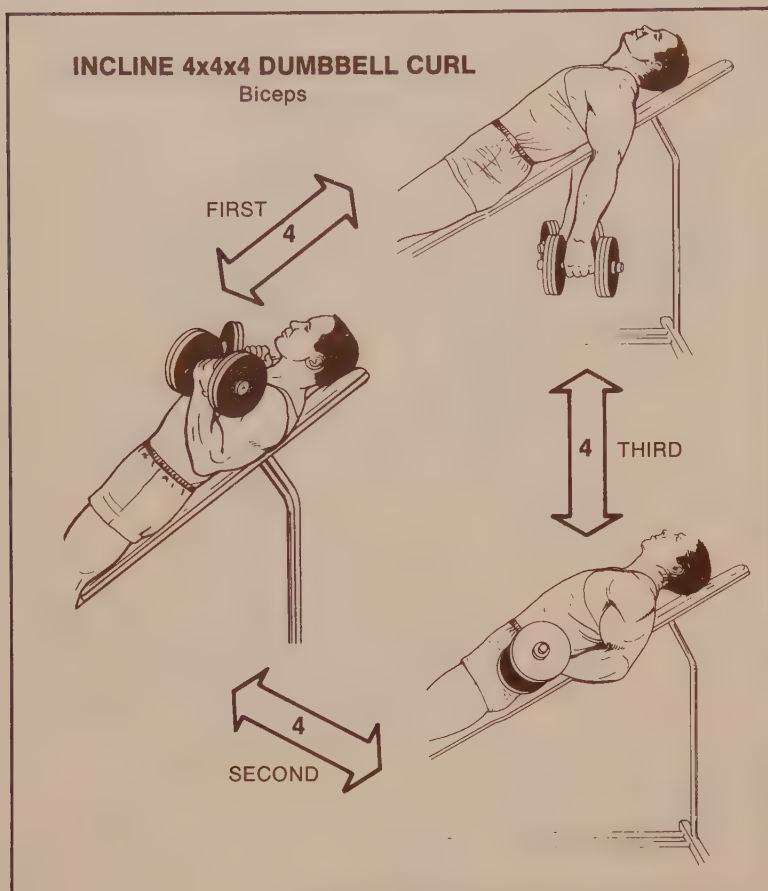
STANDING 4x4x4 DUMBBELL CURL

Biceps



INCLINE 4x4x4 DUMBBELL CURL

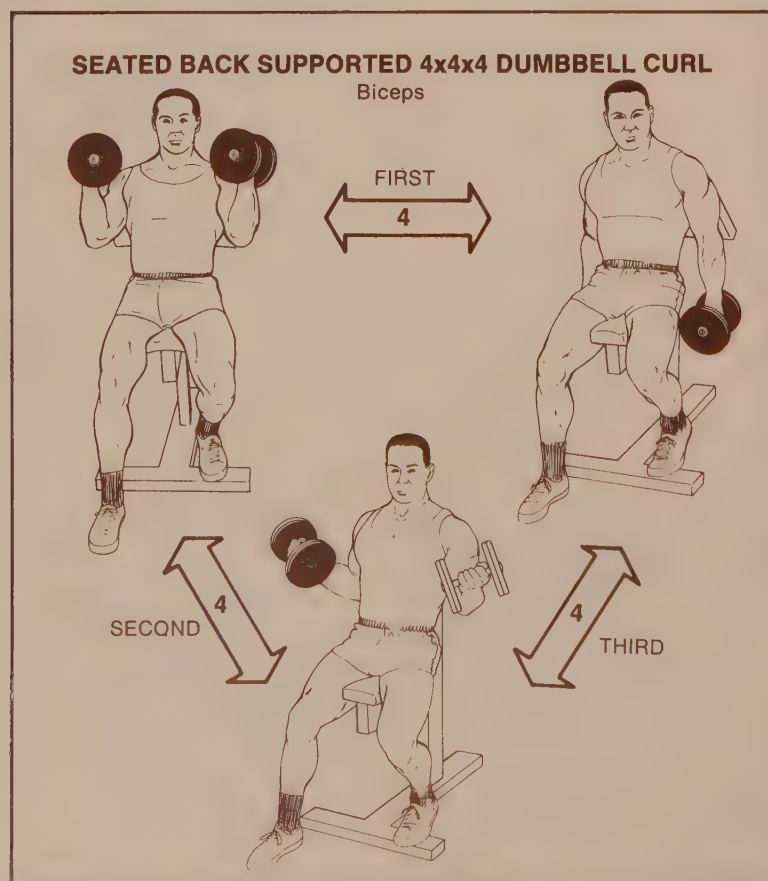
Biceps



hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Perform four complete repetitions in this manner and at the end of your fourth repetition, keep the dumbbells at the top position and perform four partial repetitions from the top half way down or until your lower arms are parallel with the floor. On your fourth repetition in this manner, lower the dumbbells to arm's length and perform four partial repetitions from the bottom half way up or until your lower arms are parallel with the floor. A total of twelve repetitions will complete one set.

★ Seated Incline 4x4x4 Dumbbell Curl

Biceps



Grasp a dumbbell in each hand and sit on an incline bench with your back straight, head up and feet on the foot pads. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Perform four complete repetitions in this manner and at the end of your fourth repetition keep the dumbbells in the up position and perform four partial repetitions from the top half way down or until your lower arms are parallel with the floor. On your fourth repetition in this manner, lower the dumbbells to arm's length and perform four partial repetitions from the bottom half way up or until your lower arms are parallel with the floor. A total of twelve repetitions will complete one set.

★ Seated Back Supported 4x4x4 Dumbbell Curl

Grasp a dumbbell in each hand and sit on a stool or chair that can support your upper back. Keep your back straight, head up and feet planted firmly on the floor. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl

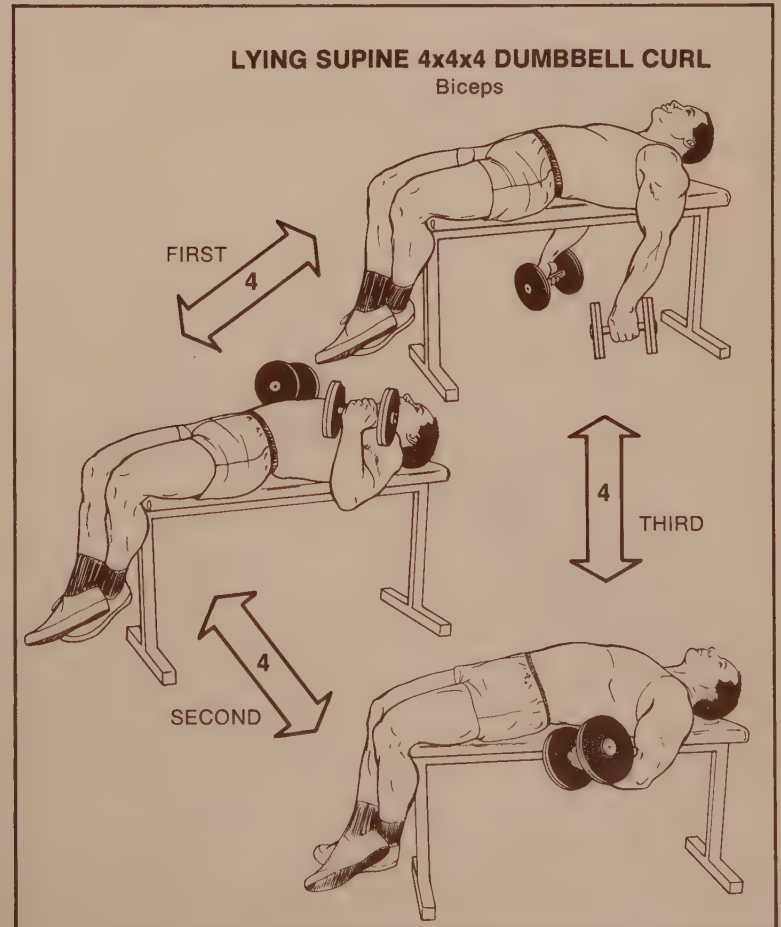
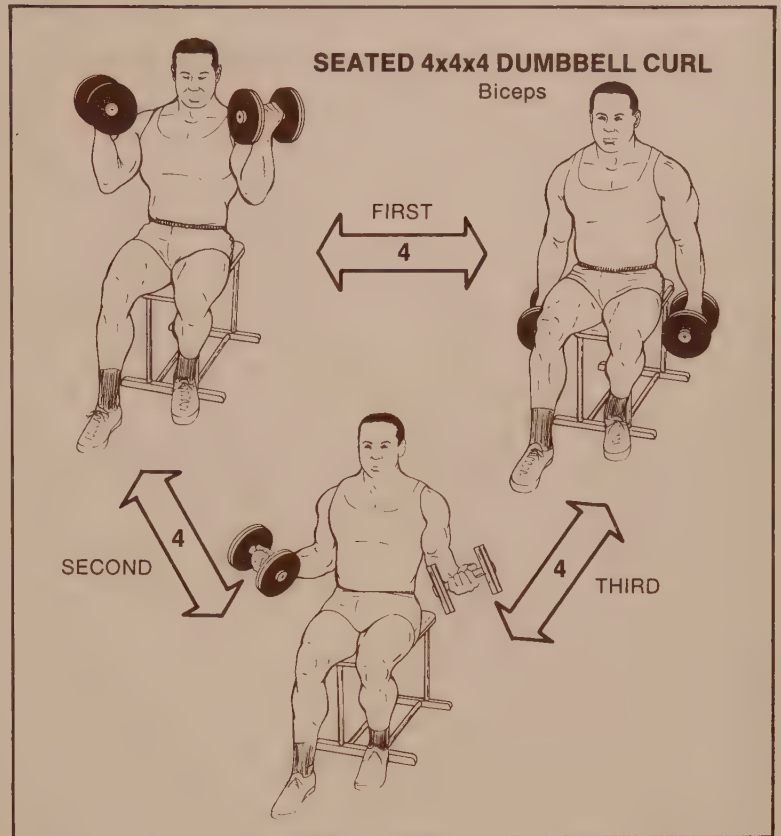
the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this up position throughout the exercise until you are lowering the weight and again near your upper thighs before turning your palms in again and exhaling. Perform four complete repetitions in this manner and at the end of your fourth repetition keep the dumbbells at the top position and perform four partial repetitions from the top half way down or until your lower arms are parallel with the floor. On your fourth repetition in this manner, lower the dumbbells to arm's length and perform four partial repetitions from the bottom half way up or until your lower arms are parallel with the floor. A total of twelve repetitions will complete one set.

★ Seated 4x4x4 Dumbbell Curl

Grasp a dumbbell in each hand and sit at the end of a bench with your back straight, head up and feet planted firmly on the floor. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Perform four complete repetitions in this manner and at the end of your fourth repetition keep the dumbbells at the top position and perform four partial repetitions from the top half way down or until your lower arms are parallel with the floor. On your fourth repetition in this manner, lower the dumbbells to arm's length and perform four partial repetitions from the bottom half way up or until your lower arms are parallel with the floor. A total of twelve repetitions will complete one set.

★ Lying Supine 4x4x4 Dumbbell Curl

Grasp a dumbbell in each hand and lie in a supine position on a flat bench. With the dumbbells hanging at arm's length from your shoulders, palms facing in, inhale and curl the dumbbell up to the height of your shoulders. As you commence the curl start to turn the palms of your hands up and keep them in this up position throughout the exercise until you are lowering the weights



SEATED INCLINE RUN THE RACK DUMBBELL CURL

Biceps

Fig. 1



Fig. 2

and again near the end of the curl before turning your palms in again and exhaling. Perform four complete repetitions in this manner and at the end of your fourth repetition keep the dumbbells at the top position and perform four partial repetitions from the top half way down or until your lower arms are parallel with the floor. On your fourth repetition in this manner, lower the dumbbells to arm's length and perform four partial repetitions from the bottom half way up or until your lower arms are parallel with the floor. A total of twelve repetitions will complete one set.

★ Seated Incline Run The Rack Dumbbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a dumbbell rack and grasp a dumbbell in each hand and sit on an incline bench with your back straight, head up, and feet planted on the foot pads, with the dumbbells at arm's length, palms facing in, at your sides. Inhale and curl the dumbbells up to shoulder height. As you commence the curl and the dumbbells are past your upper thighs, turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near the upper thighs return the palms to the original position and exhale. Perform four to six repetitions with your first set of dumbbells. Upon completion, immediately replace the weights in the rack and repeat the exercise with a heavier set of dumbbells. Continue increasing the weight of the dumbbells each set until you are unable to perform one repetition.

SEATED RUN THE RACK DUMBBELL CURL

Biceps

Fig. 1



Fig. 2

★ Seated Run the Rack Dumbbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a dumbbell rack and grasp a dumbbell in each hand and sit at the end of a flat bench with your back straight, head up, and feet planted firmly on the floor, with the dumbbells at arm's length, palms facing in, at your sides. Inhale and curl the dumbbells up to shoulder height. As you commence the curl and the dumbbells are

past your upper thighs, turn your palms up and keep them in this up position throughout the exercise until you are lowering the weight and again near the upper thighs return the palms to the original position and exhale. Perform four to six repetitions with your first set of dumbbells. Upon completion, immediately replace the weights in the rack and repeat the exercise with a heavier set of dumbbells. Continue increasing the weight of the dumbbells each set until you are unable to perform one repetition.

★ Seated Back Supported Run the Rack Dumbbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a dumbbell rack and grasp a dumbbell in each hand and sit on a chair with your back against the support, head up and feet planted firmly on the floor, with the dumbbells at arm's length, palms facing in, at your sides. Inhale and curl the dumbbells up to shoulder height. As you commence the curl and the dumbbells are past your upper thighs, turn your palms up and keep them in this up position throughout the exercise until you are lowering the weight and again near the upper thighs return the palms to original position and exhale. Perform four to six repetitions with your first set of dumbbells. Upon completion, immediately replace the weights in the rack and repeat the exercise with a heavier set of dumbbells. Continue increasing the weight of the dumbbells each set until you are unable to perform one repetition.

★ Lying Supine Run the Rack Dumbbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a dumbbell rack and grasp a dumbbell in each hand and lie supine on a flat bench with your legs at the sides of the bench and your head up. The dumbbells should be held at arm's length hanging straight down from your shoulders, palms facing in. Inhale and curl the dumbbells up to shoulder height. As you commence the curl turn your palms up and keep them in this up position throughout

SEATED BACK SUPPORTED RUN THE RACK DUMBBELL CURL

Biceps



Fig. 1



Fig. 2

LYING SUPINE RUN THE RACK DUMBBELL CURL

Biceps

Fig. 1

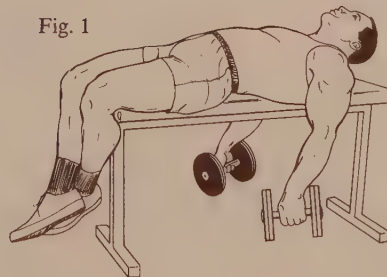
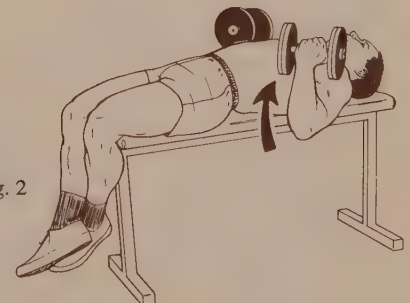


Fig. 2



STANDING RUN THE RACK DUMBBELL CURL

Biceps

Fig. 1

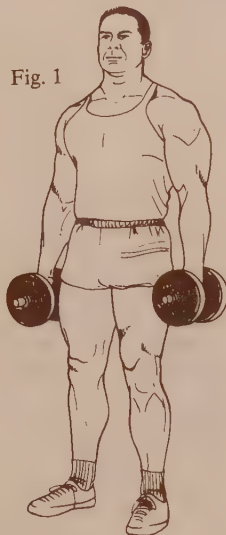


Fig. 2

**INCLINE RUN THE RACK DUMBBELL CURL**

Biceps

Fig. 1



Fig. 2



the exercise until you are lowering the weight and again near the end of the exercise and then return your palms to the original position and exhale. Perform four to six repetitions with your first set of dumbbells. Upon completion, immediately replace the weights in the rack and repeat the exercise with a heavier set of dumbbells. Continue increasing the weight of the dumbbells each set until you are unable to perform one repetition.

★ Standing Run the Rack Dumbbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a dumbbell rack and grasp a dumbbell in each hand as you stand erect, back straight, head up and feet about sixteen inches apart. The dumbbells should be held at arm's length hanging straight down from your shoulders, palms facing in. Inhale and curl the dumbbells up to shoulder height. As you commence the curl turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near the end of the exercise and then return your palms to the original position and exhale. Perform four to six repetitions with your first set of dumbbells. Upon completion, immediately replace the weights in the rack and repeat the exercise with a heavier set of dumbbells. Continue increasing the weight of the dumbbells each set until you are unable to perform one repetition.

★ Incline Run the Rack Dumbbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a dumbbell rack and grasp a dumbbell in each hand as you lie back on an incline bench with your head up and feet on the foot pads. The dumbbells should be held at arm's length hanging straight down from your shoulders, palms facing in. Inhale and curl the dumbbells up to shoulder height. As you commence the curl turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights again near the end of the exercise and then return your palms to the original position and

exhale. Perform four to six repetitions with your first set of dumbbells. Upon completion, immediately replace the weights in the rack and repeat the exercise with a heavier set of dumbbells. Continue increasing the weight of the dumbbells each set until you are unable to perform one repetition.

▲ Seated Back Supported Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms up grip and the closest hand spacing curves possible. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Back Supported Medium Grip Easy Curl Bar Curl

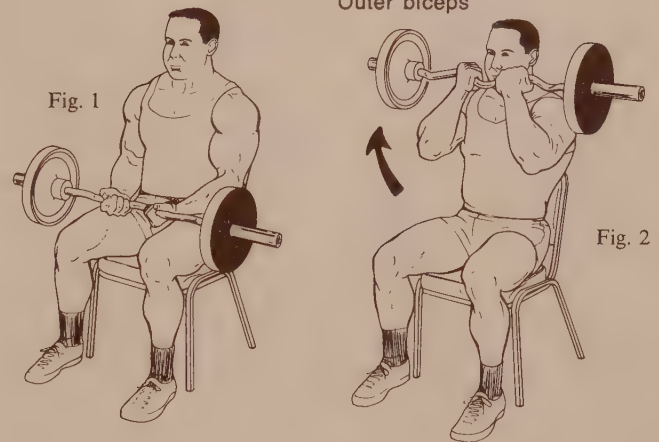
Grasp an easy curl bar with both hands using a palms up grip on the medium spaced curves of the bar. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the back of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms up grip and the closest hand spacing curves possible. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

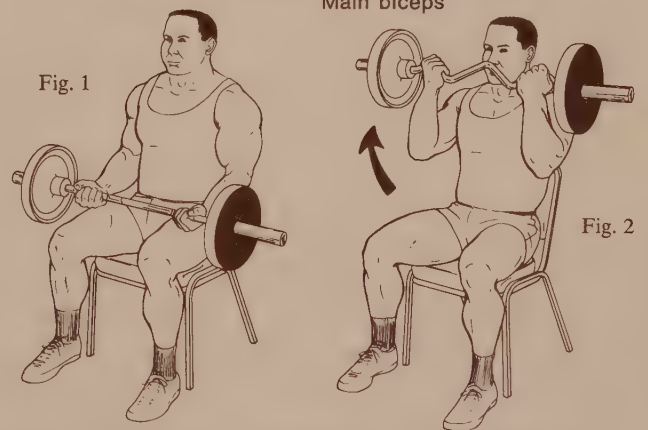
SEATED BACK SUPPORTED CLOSE GRIP EASY CURL BAR CURL

Outer biceps



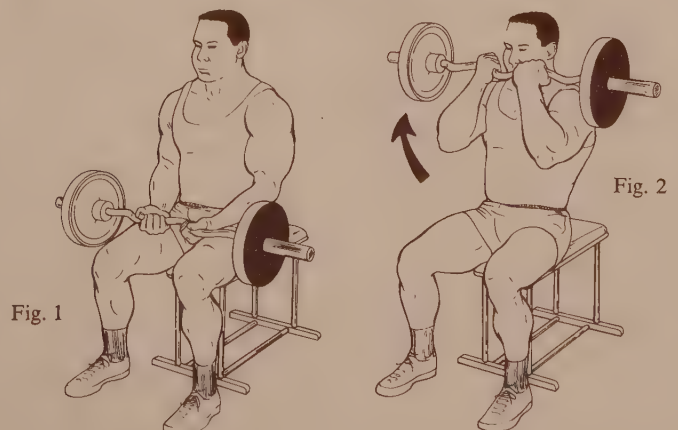
SEATED BACK SUPPORTED MEDIUM GRIP EASY CURL BAR CURL

Main biceps



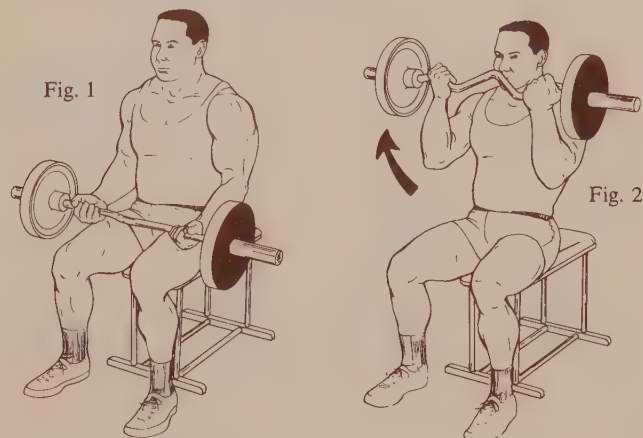
SEATED CLOSE GRIP EASY CURL BAR CURL

Outer biceps

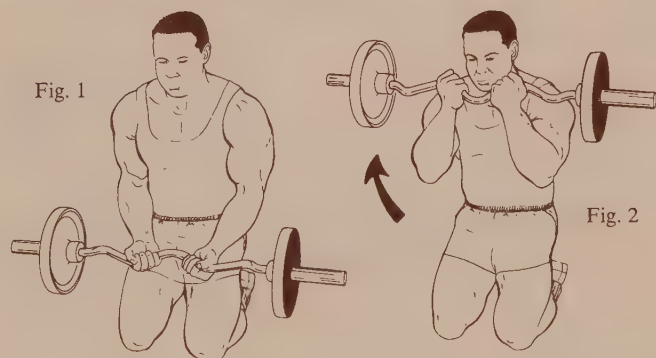


SEATED MEDIUM GRIP EASY CURL BAR CURL

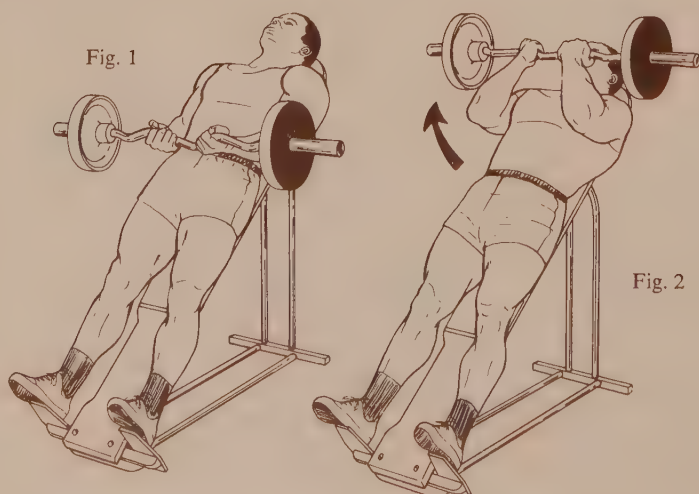
Main biceps

**KNEELING CLOSE GRIP EASY CURL BAR CURL**

Outer biceps

**INCLINE CLOSE GRIP EASY CURL BAR CURL**

Outer biceps

**▲ Seated Medium Grip Easy Curl Bar Curl**

Grasp an easy curl bar with both hands using a palms up grip on the medium spaced curves of the bar. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the back of your hands just to the outside of your thighs and have the easy bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Kneeling Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms up grip and the closest hand spacing curves possible. Kneel down on the floor sitting down until your leg biceps and calves touch. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Kneeling Medium Grip Easy Curl Bar Curl

Main biceps

Grasp an easy curl bar with both hands using a palms up grip on the medium spaced curves of the bar. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the back of your hands just to the outside of your thighs and have the bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Incline Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms up grip on the first curves of the bar. Lie back on an incline bench with the easy bar held at arm's length in front of you and resting on your upper thighs. Inhale and curl the easy bar upward in a semi-

circular motion until your biceps and forearms touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

▲ Incline Medium Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms up grip on the medium hand spacing curves. Lie back on an incline bench with the easy bar held at arm's length in front of you and resting on your upper thighs. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

▲ Seated Incline Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms up grip and the closest hand spacing curves possible. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the back of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Incline Medium Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms up grip on the medium spaced curves of the bar. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the back of your hands just to the outside of your thighs and have the easy bar resting on your thighs about two-thirds of the way up from your knees. Inhale and curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar path and exhale.

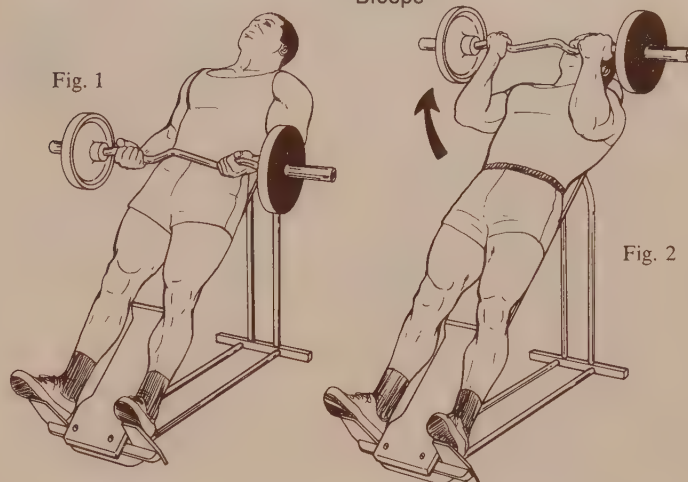
■ Standing Close Grip Easy Curl Bar Cheat Curl

Outer biceps and lower back

Hold an easy curl bar with both hands using a palms up grip on the first curves of the bar. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your biceps and rocking back slightly to bring your lower back

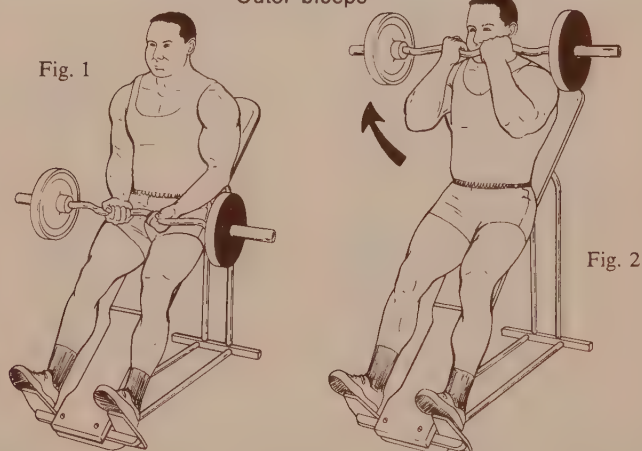
INCLINE MEDIUM GRIP EASY CURL BAR CURL

Biceps



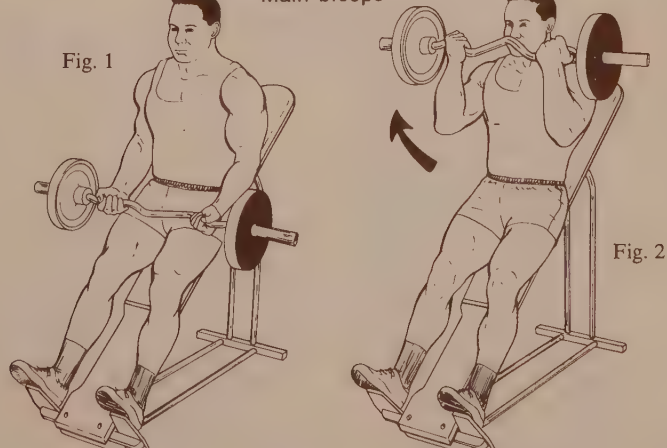
SEATED INCLINE CLOSE GRIP EASY CURL BAR CURL

Outer biceps



SEATED INCLINE MEDIUM GRIP EASY CURL BAR CURL

Main biceps



STANDING MEDIUM GRIP EASY CURL BAR CHEAT CURL

Biceps and lower back

Fig. 1

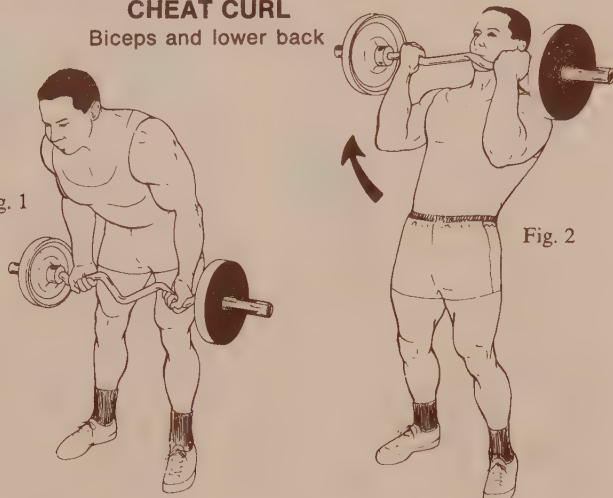


Fig. 2

SEATED REVERSE CLOSE GRIP EASY CURL BAR CURL

Outer biceps and forearms

Fig. 1

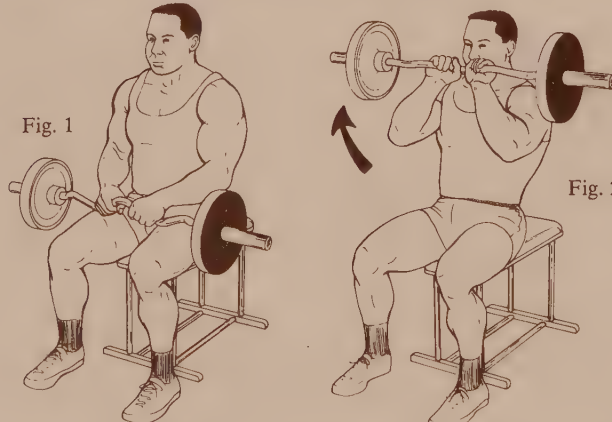


Fig. 2

SEATED INCLINE REVERSE CLOSE GRIP EASY CURL BAR CURL

Outer biceps
and forearms

Fig. 1

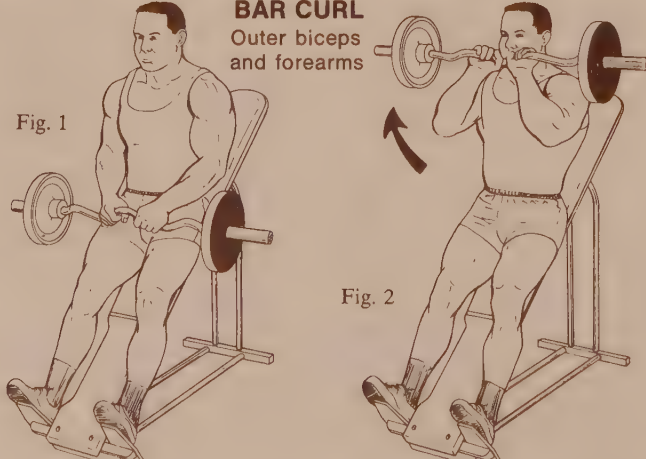


Fig. 2

into play. This will enable you to handle heavier poundages. As you are lowering the easy bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Medium Grip Easy Curl Bar Cheat Curl

Hold an easy curl bar with both hands using a palms up grip on the medium hand spacing curves. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the easy bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Seated Reverse Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms down grip and the closest hand spacing curves possible. Sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Seated Incline Reverse Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms down grip and the closest hand spacing curves possible. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

■ Seated Incline Reverse Medium Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms down grip on the medium

spaced curves of the bar. Sit on an incline bench with your back straight, head up and feet on the foot pads. Place the front of your hands just to the outside of your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Back Supported Reverse Close Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms down grip and the closest hand spacing curves possible. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Seated Back Supported Reverse Medium Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms down grip on the medium spaced curves of the bar. Sit on a chair with your back against the support, head up and feet planted firmly on the floor. Place the front of your hands just to the outside of your thighs about two-thirds of the way up from your knees. Inhale and reverse curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the weight to starting position using a similar semicircular path and exhale.

▲ Kneeling Reverse Close Grip Easy Curl Bar Curl

Main bicep and forearm

Grasp an easy curl bar with both hands using a palms down grip and the closest hand spacing curves possible. Kneel down on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. Place the front of your hands on your upper thighs about two-thirds of the way up from your knees. Inhale and reverse curl the easy bar upward in a semicircular motion until your biceps and forearms touch and the easy bar is nearly under your chin. Return the

SEATED INCLINE REVERSE MEDIUM GRIP EASY CURL BAR CURL

Main biceps and forearms

Fig. 1

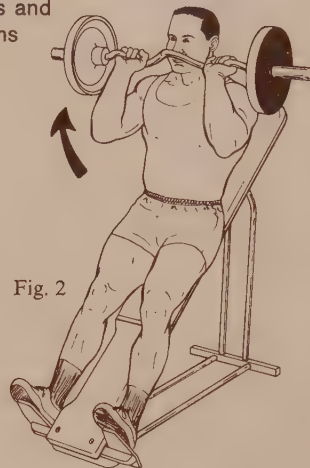


Fig. 2

SEATED BACK SUPPORTED REVERSE CLOSE GRIP EASY CURL BAR CURL

Outer biceps and forearms

Fig. 1

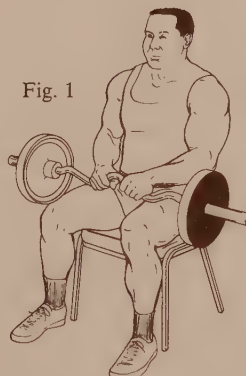


Fig. 2

SEATED BACK SUPPORTED REVERSE MEDIUM GRIP EASY CURL BAR CURL

Main biceps and forearms

Fig. 1

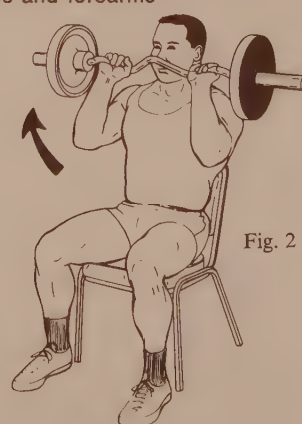
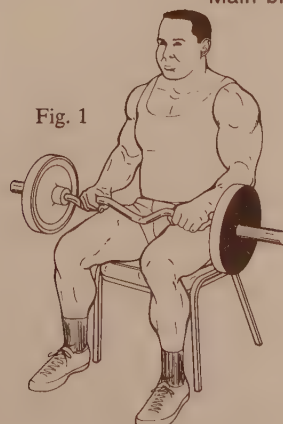
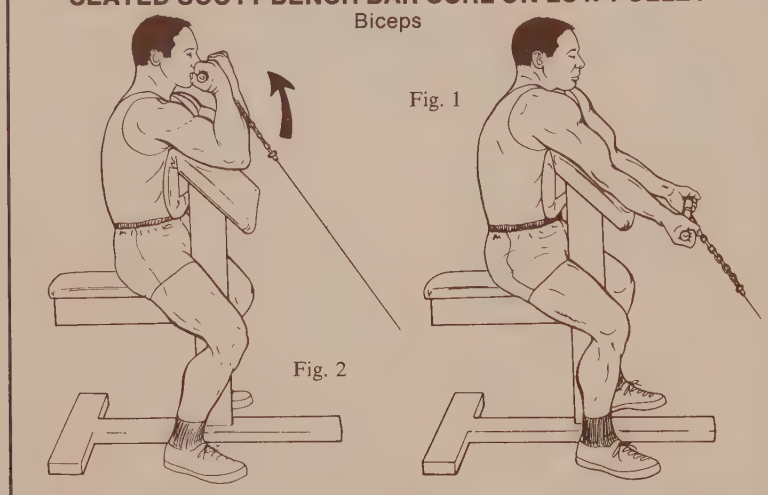


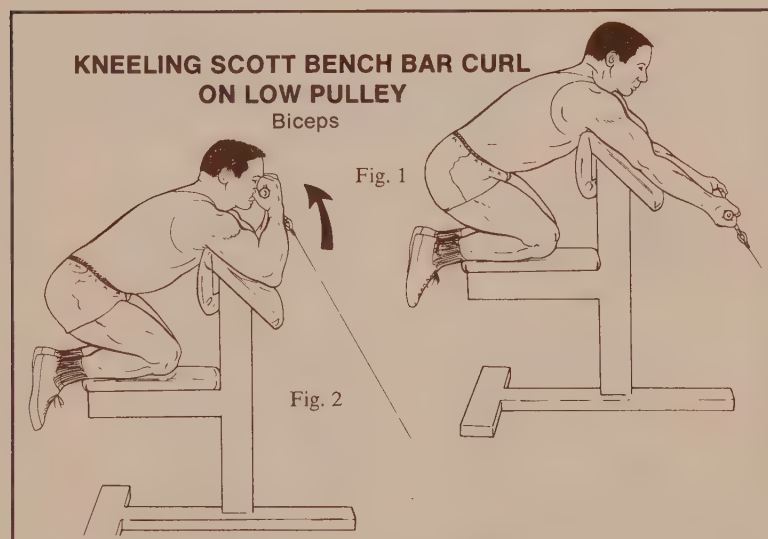
Fig. 2

SEATED SCOTT BENCH BAR CURL ON LOW PULLEY

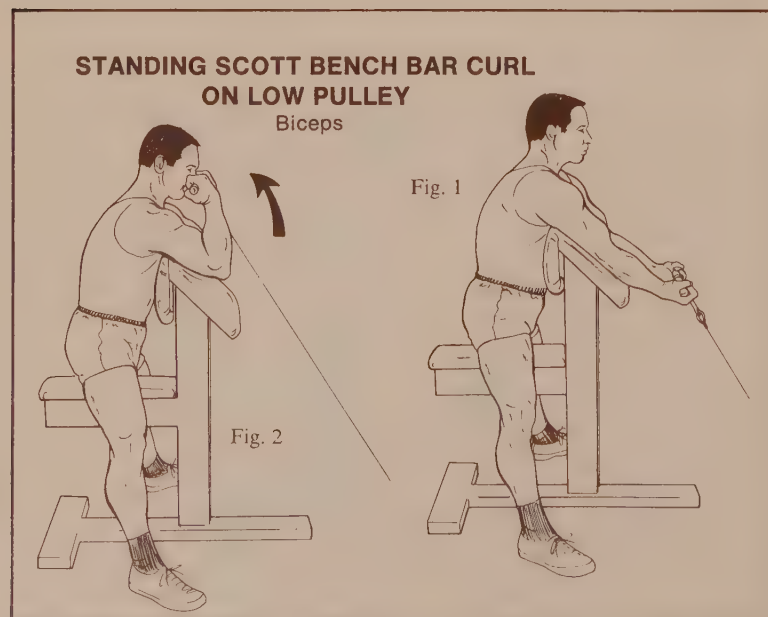
Biceps

**KNEELING SCOTT BENCH BAR CURL ON LOW PULLEY**

Biceps

**STANDING SCOTT BENCH BAR CURL ON LOW PULLEY**

Biceps



weight to starting position using a similar semicircular path and exhale.

▲ Seated Scott Bench Bar Curl on Low Pulley

Attach a short bar to the two lower pulley cables of a wall machine. Place a Scott bench in front of the pulley facing the machine and far enough back to allow your arms to support the weight stacks with the bar at arm's length using a palms up grip. Grasp the short bar while facing the pulley and step backwards and sit on the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stack up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.

▲ Kneeling Scott Bench Bar Curl on Low Pulley

Attach a short bar to the two lower pulley cables of a wall machine. Place a Scott bench in front of the pulley facing the machine and far enough back to allow your arms to support the weight stacks with the bar at arm's length using a palms up grip. Grasp the short bar while facing the pulley and step backwards and kneel on the seat of the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stacks up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.

▲ Standing Scott Bench Bar Curl on Low Pulley

Attach a short bar to the two lower pulley cables of a wall machine. Place a Scott bench in front of the pulley facing the machine and far enough back to allow your arms to support the weight stacks with the bar at arm's length using a palms up grip. Grasp the short bar while facing the Universal and step backwards and straddle the seat of the Scott bench (do not sit on the bench) with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stacks up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using

the same circular motion, with your upper arms in, and exhale.

■ Kneeling Scott Bench Reverse Grip Bar Curl on Low Pulley

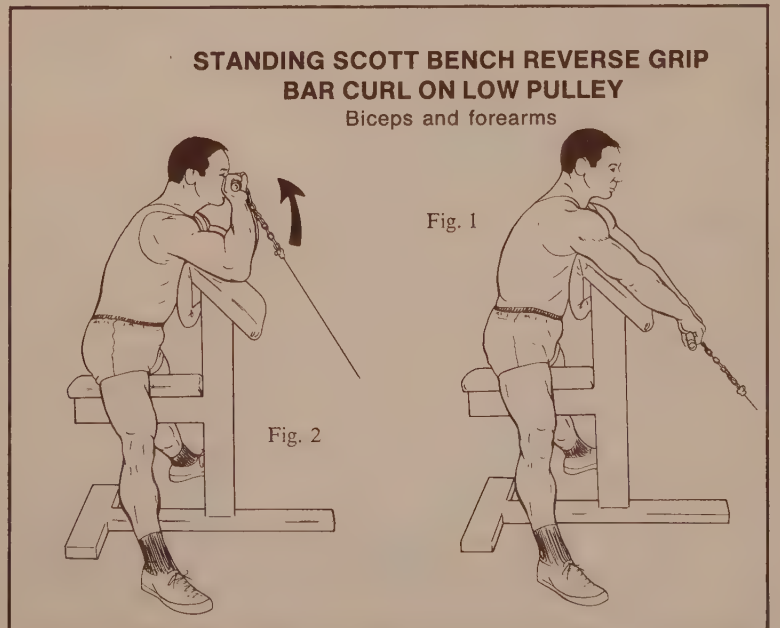
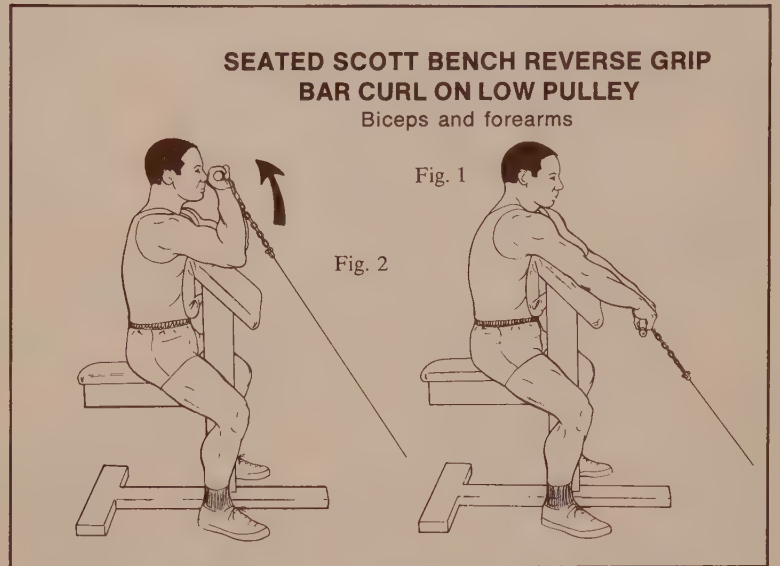
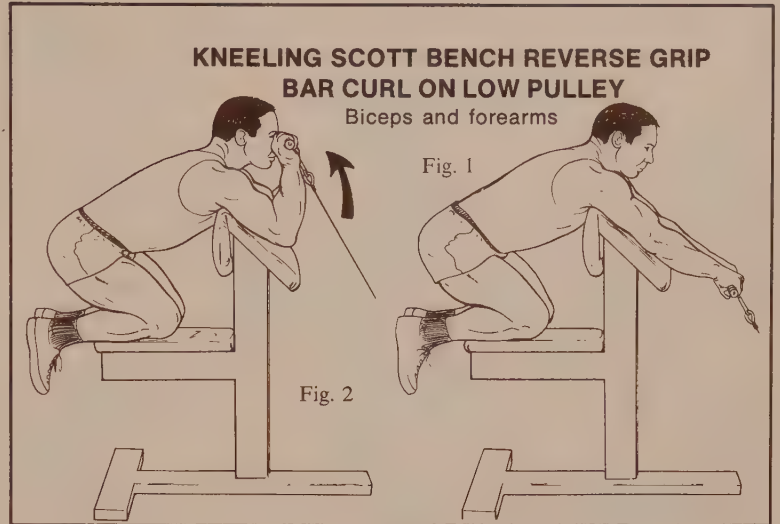
Attach a short bar to the two lower pulley cables of a wall machine. Place a Scott bench in front of the pulley facing the machine and far enough back to allow your arms to support the weight stacks with the bar at arm's length using a palms down grip. Grasp the short bar while facing the pulley and step backward and kneel on the seat of the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stacks up by using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.

■ Seated Scott Bench Reverse Grip Bar Curl on Low Pulley

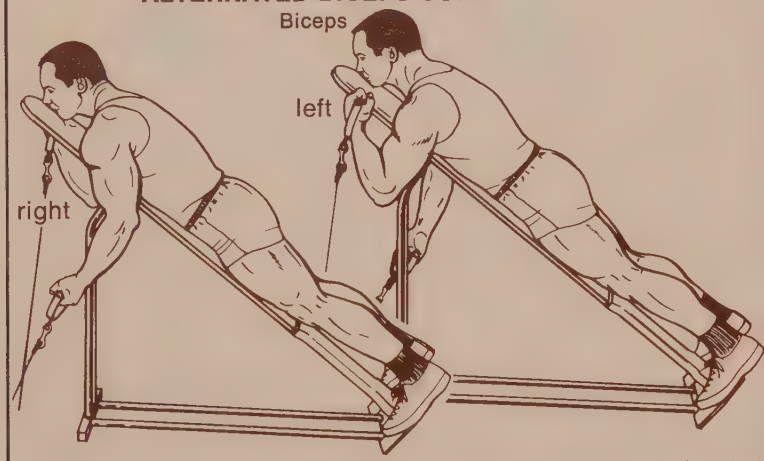
Attach a short bar to the two lower pulley cables of a wall machine. Place a Scott bench in front of the pulley facing the machine and far enough back to allow your arms to support the weight stacks with the bar at arm's length using a palms down grip. Grasp the short bar while facing the pulley and step backwards and sit on the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn in as you inhale and curl the weight stacks up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.

■ Standing Scott Bench Reverse Grip Bar Curl on Low Pulley

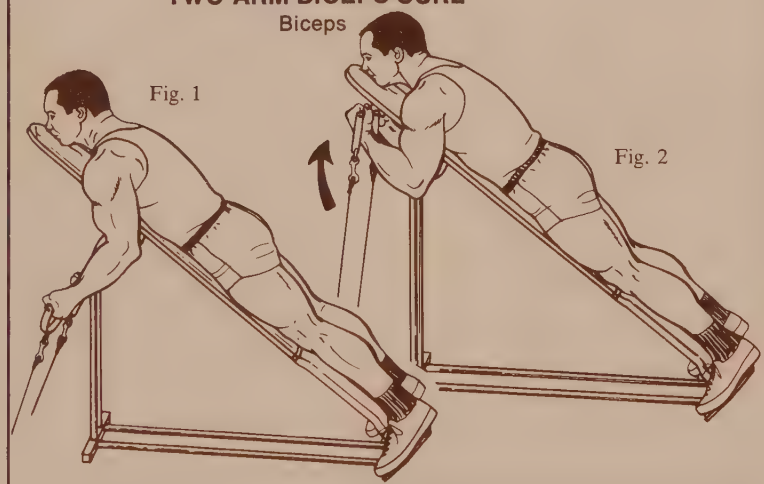
Attach a short bar to the two lower pulley cables of a wall machine. Place a Scott bench in front of the pulley facing the machine and far enough back to allow your arms to support the weight stacks with the bar at arm's length using a palms down grip. Grasp the short bar while facing the pulley and step backwards and straddle the seat of the Scott bench (do not sit on the bench) with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stacks up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using



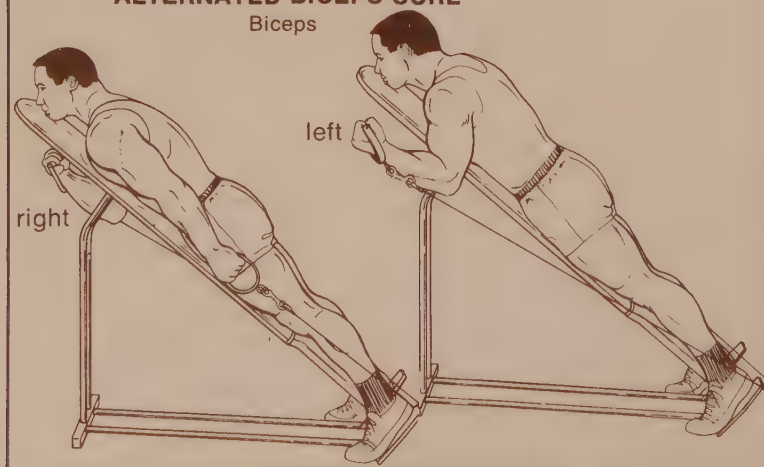
INCLINE FACE FORWARD LOW PULLEY ALTERNATED BICEPS CURL



INCLINE FACE FORWARD LOW PULLEY TWO ARM BICEPS CURL



INCLINE FACE AWAY LOW PULLEY ALTERNATED BICEPS CURL



the same circular motion, with your upper arms in, and exhale.

■ Incline Face Forward Low Pulley Alternated Biceps Curl

Position an incline bench in front of a wall pulley with the high end of the bench closest to the pulley. Grasp the two lower pulley cable handles with both hands and lie face forward on the incline bench. With your arms hanging down vertical with your shoulders and the palms of your hands facing up, you should be supporting both weight stacks with each hand and have no slack in the cables. Curl the handle in your right hand upward until your right forearm and biceps touch. Keep your upper arm in close to your side and in a vertical position. As you commence to lower your right hand back to starting position, bring your left hand up in a similar manner so as the right hand is returning to starting position the left hand is at the top position. Inhale as you work your left hand.

■ Incline Face Forward Low Pulley Two Arm Biceps Curl

Position an incline bench in front of a wall pulley with the high end of the bench closest to the pulley. Grasp the two lower pulley cable handles with both hands and lie face forward on the incline bench. With your arms hanging down vertical from your shoulders and the palms of your hands facing up, you should be supporting both weight stacks with each hand and have no slack in the cables. Inhale and curl the handles upward until your forearms and biceps touch. Keep your upper arms in close to your sides and in a vertical position. Return to starting position and exhale.

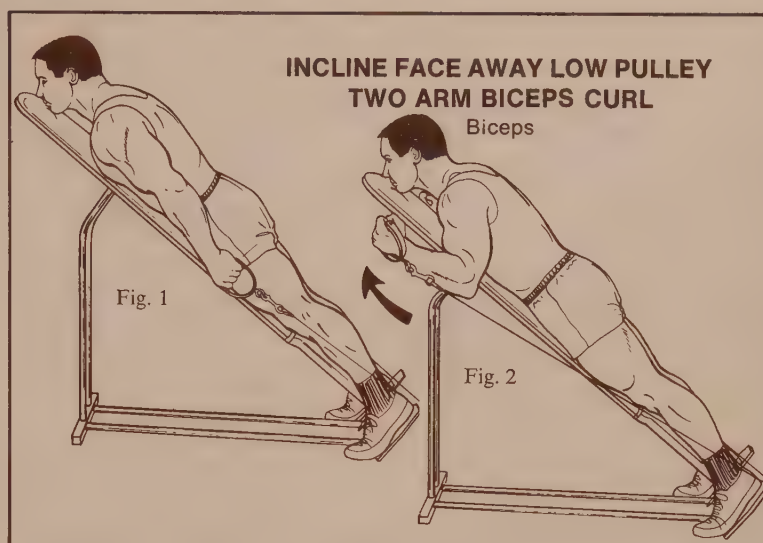
■ Incline Face Away Low Pulley Alternated Biceps Curl

Position an incline bench in front of a wall pulley with the lower end of the bench closest to the pulley. Grasp the two lower pulley cable handles with both hands as you are facing away from the machine and lie face forward on the incline bench. With your arms hanging down and slightly back towards the wall pulley and the palms of your hands facing to the front, inhale and curl the pulley cable in your right hand upward until your right forearm and right biceps touch. Your upper arm should remain in a fixed position and in close to your side. As you commence to lower your right hand back to starting position, bring your left hand

up in a similar manner so as the right hand is returning to starting position the left hand is at the top position. Inhale as you work your right hand and exhale as you work your left hand.

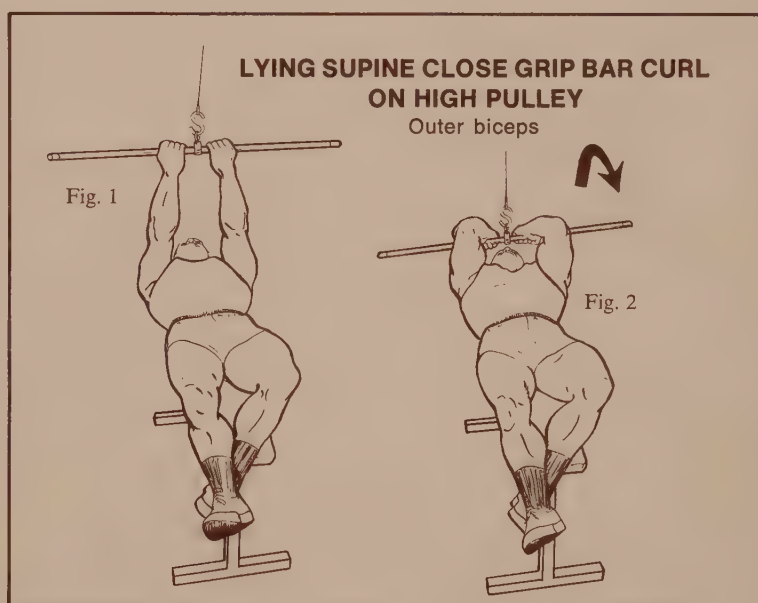
■ Incline Face Away Low Pulley Two Arm Biceps Curl

Position an incline bench in front of a wall pulley with the lower end of the bench closest to the pulley. Grasp the two lower pulley cable handles with both hands as you are facing away from the machine and lie face forward on the incline bench. With your arms hanging down and slightly back towards the wall pulley and the palms of your hands facing to the front, inhale and curl the pulley cables upward until your forearms and biceps touch. Your upper arms should remain in a fixed position and in close to your sides. Return to starting position and exhale.



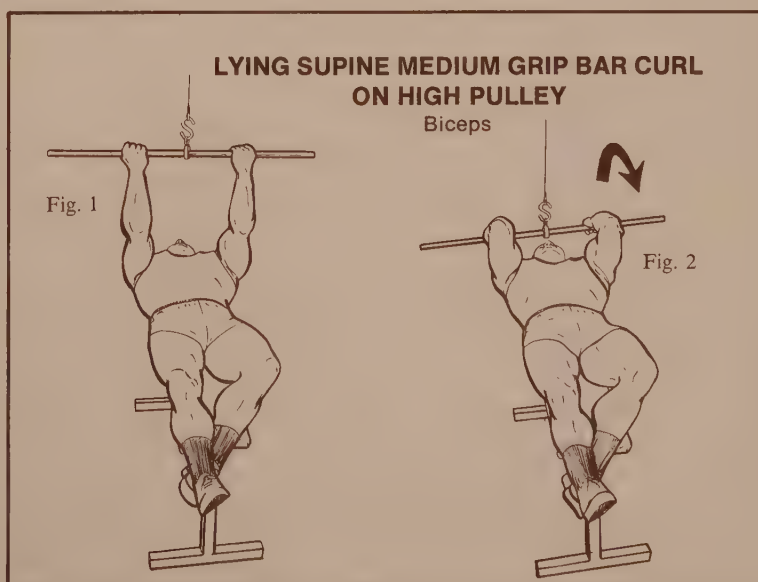
▲ Lying Supine Close Grip Bar Curl on High Pulley

Place a flat bench in front of a high pulley with the bench facing long ways. Attach a bar to the pulley cable and grasp the bar with both hands using a palms up grip about sixteen inches apart. Lie on the bench in a supine position with your head over the end of the bench and pointing down. Be sure the bench is far enough from the machine to enable your arms to support the weight stack when they are locked out and vertical with the floor. Inhale and curl the bar down to your chin in a semicircular motion, keeping your upper arms in the vertical position throughout the exercise. Return to starting position and exhale.



▲ Lying Supine Medium Grip Bar Curl on High Pulley

Place a flat bench in front of a high pulley with the bench facing long ways. Attach a bar to the pulley cable and grasp the bar with both hands using a palms up grip about sixteen inches apart. Lie on the bench in a supine position with your head over the end of the bench and pointing down. Be sure the bench is far enough from the machine to enable your arms to support the weight stack when they are locked out and vertical with the floor. Inhale and curl the bar down to your chin in a semicircular motion, keeping your upper arms in the vertical position throughout the exercise. Return to starting position and exhale.



LYING SUPINE WIDE GRIP BAR CURL ON HIGH PULLEY

Inner biceps

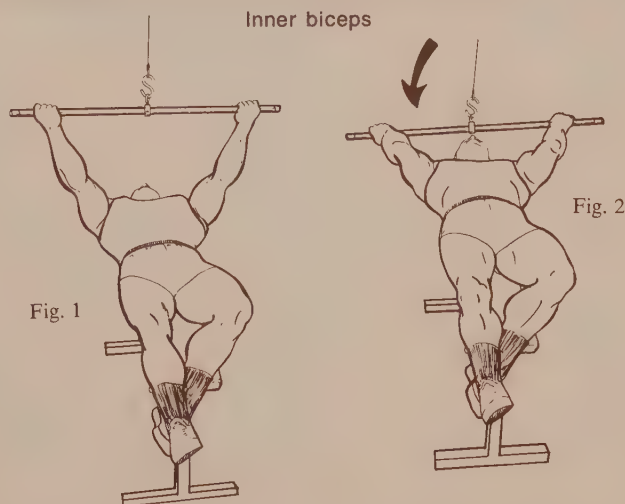


Fig. 1

Fig. 2

■ Lying Supine Wide Grip Bar Curl on High Pulley

Place a flat bench in front of a high pulley with the bench facing long ways. Attach a bar to the pulley cable and grasp the bar with both hands using a palms up grip about twenty-four inches apart. Lie on the bench in a supine position with your head over the end of the bench and pointing down. Be sure the bench is far enough from the machine to enable your arms to support the weight stack when they are locked out and vertical with the floor. Inhale and curl the bar down to your chin in a semicircular motion, keeping your upper arms in the vertical position throughout the exercise. Return to starting position and exhale.

■ Seated Scott Bench Bar Curl on Universal Machine**SEATED SCOTT BENCH BAR CURL ON UNIVERSAL MACHINE**

Biceps

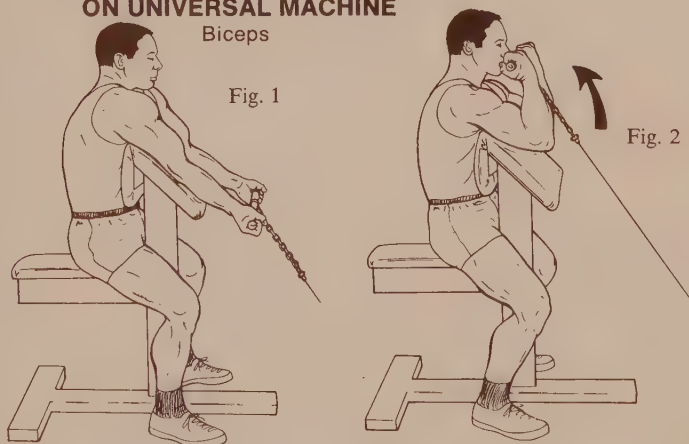


Fig. 1

Fig. 2

Place a Scott bench in front of the station on a Universal type machine that is used for biceps exercise. The front of the Scott bench should be facing the machine and far enough back to allow your arms to support the weight stack with the bar at arm's length using a palms up grip. Grasp the short bar while facing the Universal and step backwards and sit on the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stack up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.

■ Standing Scott Bench Bar Curl on Universal Machine**STANDING SCOTT BENCH BAR CURL ON UNIVERSAL MACHINE**

Biceps

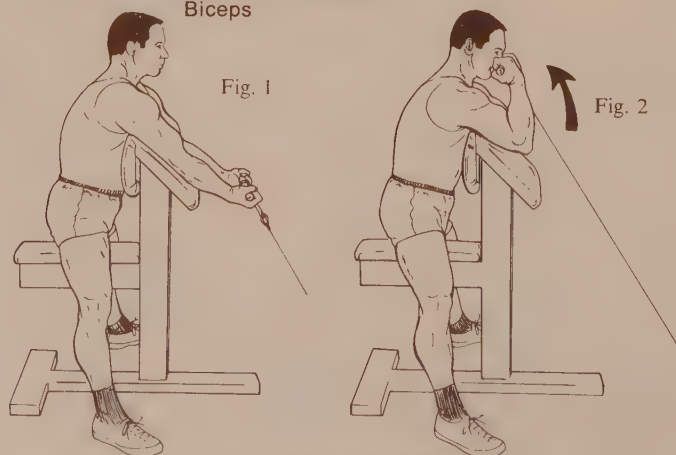


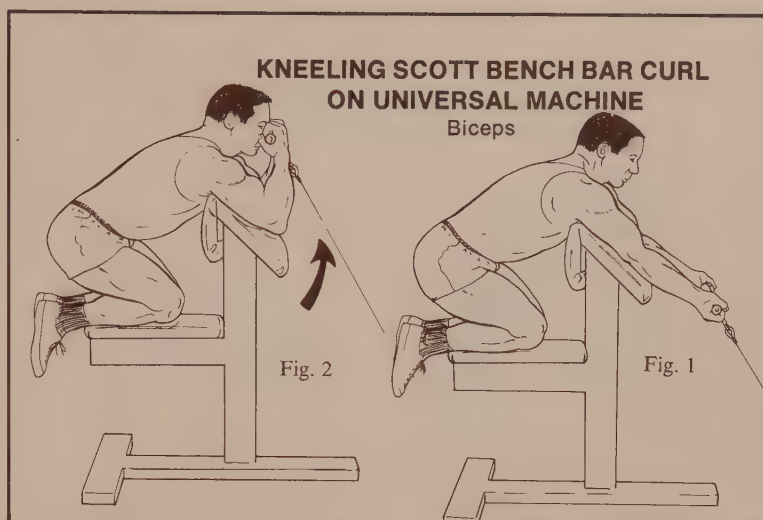
Fig. 1

Fig. 2

Place a Scott bench in front of the station on a Universal type machine that is used for biceps exercise. The front of the Scott bench should be facing the machine and far enough back to allow your arms to support the weight stack with the bar at arm's length using a palms up grip. Grasp the short bar while facing the Universal and step backwards and straddle the seat of the Scott bench (do not sit on the bench) with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stack up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.

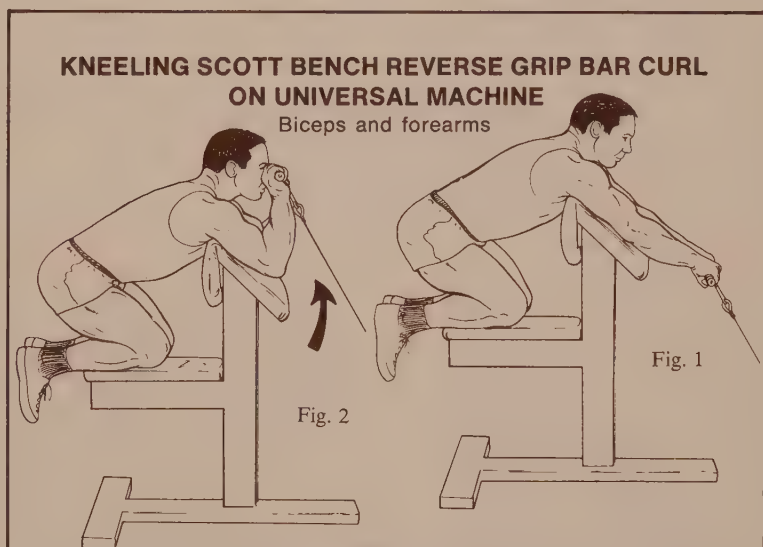
■ Kneeling Scott Bench Bar Curl on Universal Machine

Place a Scott bench in front of the station on a Universal type machine that is used for biceps exercise. The front of the Scott bench should be facing the machine and far enough back to allow your arms to support the weight stack with the bar at arm's length using a palms up grip. Grasp the short bar while facing the Universal and step backwards and kneel on the seat of the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stack up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.



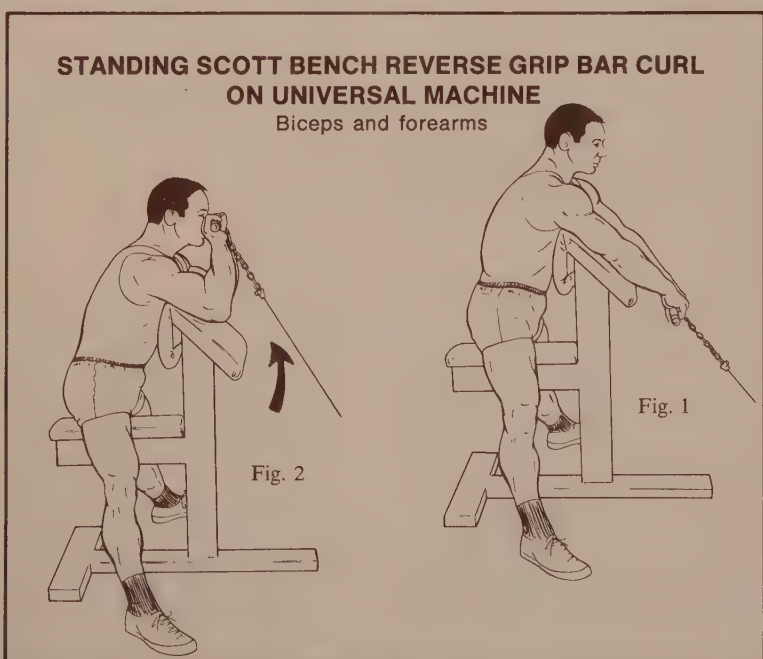
■ Kneeling Scott Bench Reverse Grip Bar Curl on Universal Machine

Place a Scott bench in front of the station on a Universal type machine that is used for biceps exercise. The front of the Scott bench should be facing the machine and far enough back to allow your arms to support the weight stack with the bar at arm's length using a palms down grip. Grasp the short bar while facing the Universal and step backwards and kneel on the seat of the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stack up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.



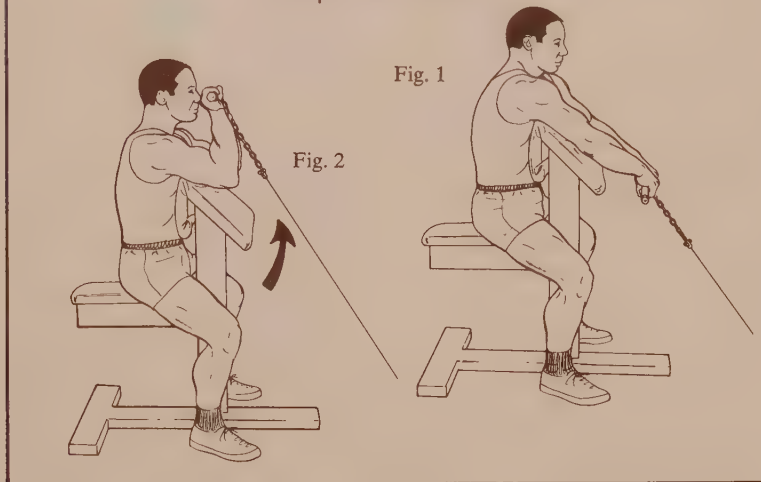
■ Standing Scott Bench Reverse Grip Bar Curl on Universal Machine

Place a Scott bench in front of the station on a Universal type machine that is used for biceps exercise. The front of the Scott bench should be facing the machine and far enough back to allow your arms to support the weight stack with the bar at arm's length using a palms down grip. Grasp the short bar while facing the Universal and step backwards and straddle the seat of the Scott bench (do not sit on the bench) with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn inward as you inhale and curl the weight stack up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.



SEATED SCOTT BENCH REVERSE GRIP BAR CURL ON UNIVERSAL MACHINE

Biceps and forearms



touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms and exhale.

■ Seated Scott Bench Reverse Grip Bar Curl on Universal Machine

Place a Scott bench in front of the station on a Universal type machine that is used for biceps exercise. The front of the Scott bench should be facing the machine and far enough back to allow your arms to support the weight stack with the bar at arm's length using a palms down grip. Grasp the short bar while facing the Universal and step backwards and sit on the Scott bench with your arms over the end of the bench on the slanted pad. Try to keep your upper arms drawn in as you inhale and curl the weight stack up using a semicircular motion until your forearms and biceps touch and the bar is nearly touching your chin. Return to starting position using the same circular motion, with your upper arms in, and exhale.

LYING FLOOR FEET FORWARD HIGH PULLEY REVERSE GRIP BAR CURL

Biceps and forearms

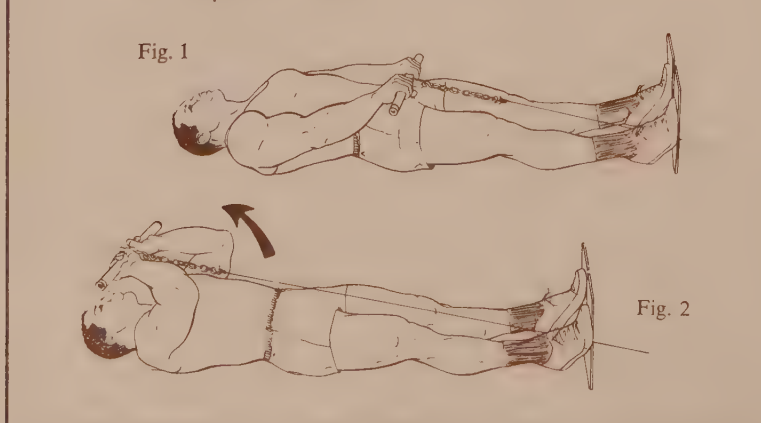


▲ Lying Floor Feet Forward High Pulley Reverse Grip Bar Curl

Attach a short bar to the two upper pulley cables of a wall machine. Grasp the bar and lie in a supine position with your feet facing the machine but far enough from the pulley to allow your arms to support the weight stacks with the bar at arm's length using a palms down grip. Inhale and reverse curl the bar downward by bending your arms at your elbows but keeping your upper arms in close to your sides. Reverse curl the bar down until your biceps and forearms are touching. Return to starting position and exhale.

LYING REVERSE GRIP BAR CURL ON UNIVERSAL MACHINE

Biceps and forearms



▲ Lying Reverse Grip Bar Curl on Universal Machine

On most of the multistation Universal type machines there is one station used mainly for biceps and back exercises. Grasp the short bar that is attached to the lower pulley cable of this station and lie in a supine position with your feet facing the machine but far enough from the machine to allow your arms to support the weight stack with the bar at arm's length using a palms down grip and the bar resting against your upper thighs. Inhale and curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides.

Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Kneeling Reverse Close Grip Curl on Biceps Machine

Kneel down on the seat of a biceps curling machine and grasp the first curves of the curling bar with a palms down grip. If the machine has a straight bar, used a palm down grip about six to eight inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Kneeling Reverse Medium Grip Curl on Biceps Machine

Kneel down on the seat of a biceps curling machine and grasp the medium hand spacing curves with a palms down grip. If the machine has a straight bar, use a palms down grip about sixteen inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Seated Reverse Medium Grip Curl on Biceps Machine

Forearms and biceps

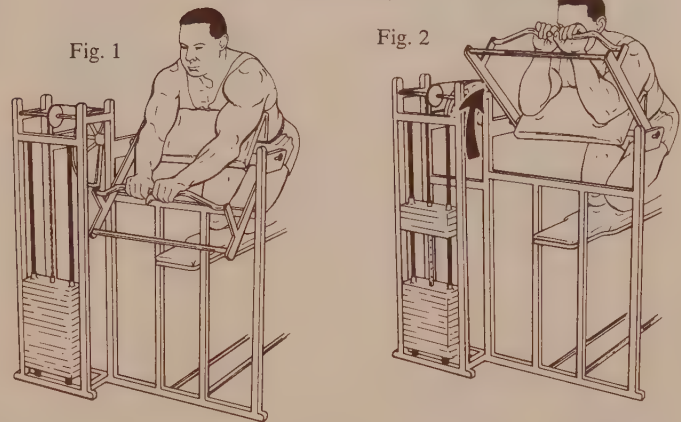
Sit on the seat of a biceps curling machine and grasp the medium hand spacing curves with a palms down grip. If the machine has a straight bar, use a palms down grip about sixteen inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Seated Reverse Close Grip Curl on Biceps Machine

Sit on the seat of a biceps curling machine and grasp the first curves of the curling bar with a palms down grip. If the machine has a straight bar, use a palms down grip about six to eight inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

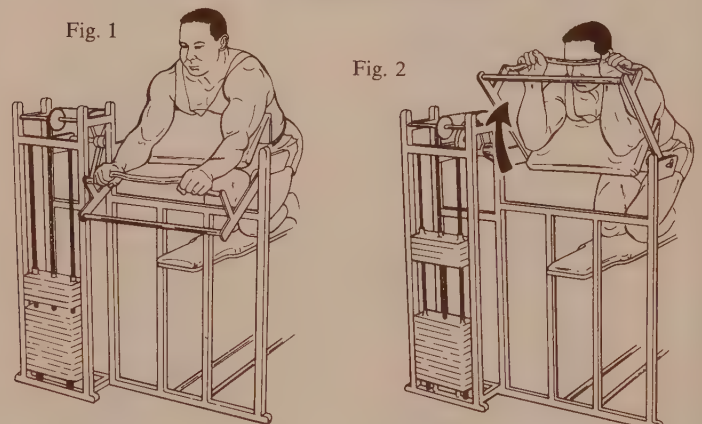
KNEELING REVERSE CLOSE GRIP CURL ON BICEPS MACHINE

Outer biceps and forearms



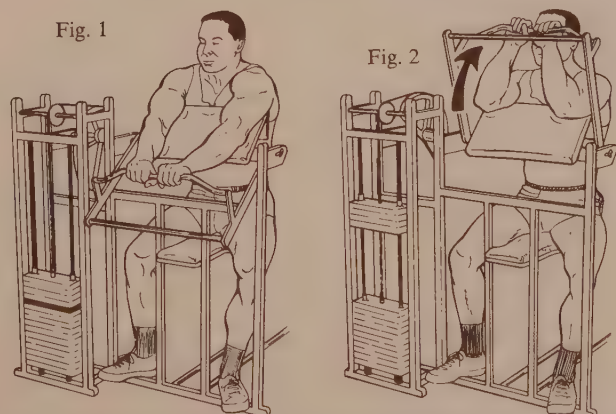
KNEELING REVERSE MEDIUM GRIP CURL ON BICEPS MACHINE

Biceps and forearms



SEATED REVERSE CLOSE GRIP CURL ON BICEPS MACHINE

Outer biceps and forearms



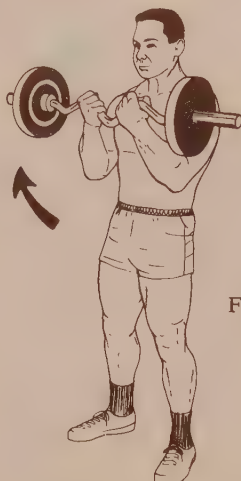
STANDING CLOSE GRIP EASY CURL BAR CURL

Outer biceps

Fig. 1



Fig. 2

**▲ Standing Close Grip Easy Curl Bar Curl**

Hold an easy curl bar with both hands using a palms up grip on the first curves of the bar. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your biceps to curl the weight. As you are lowering the easy bar to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

STANDING MEDIUM GRIP EASY CURL BAR CURL

Biceps

Fig. 1

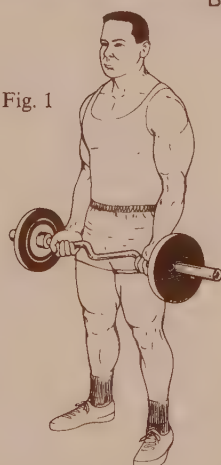
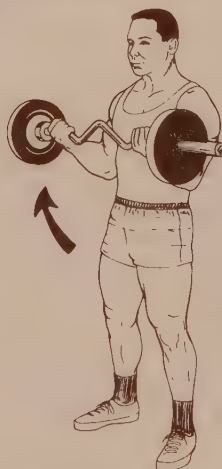


Fig. 2

**▲ Standing Medium Grip Easy Curl Bar Curl**

Hold an easy curl bar with both hands using a palms up grip on the medium hand spacing curves. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your biceps to curl the weight. As you are lowering the easy bar to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

STANDING CLOSE GRIP EASY CURL BAR CURL**AGAINST WALL**

Outer biceps

Fig. 1

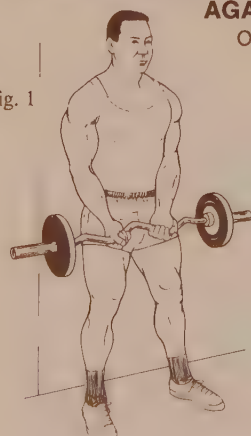
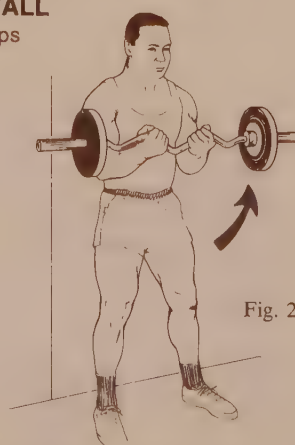


Fig. 2

**■ Standing Close Grip Easy Curl Bar Curl
Against Wall**

Hold an easy curl bar with both hands using a palms up grip on the first curves of the bar. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

**■ Standing Medium Grip Easy Curl Bar Curl
Against Wall**

Biceps

Hold an easy curl bar with both hands using a palms up grip on the medium hand spacing curves. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the barbell at arm's length against your upper thighs, inhale and curl the bar

up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

▲ Standing Reverse Close Grip Barbell Curl

Hold a barbell with both hands using a palms down grip about twelve inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back straight, legs and hips locked out. As you are lowering the bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

▲ Standing Reverse Medium Grip Barbell Curl

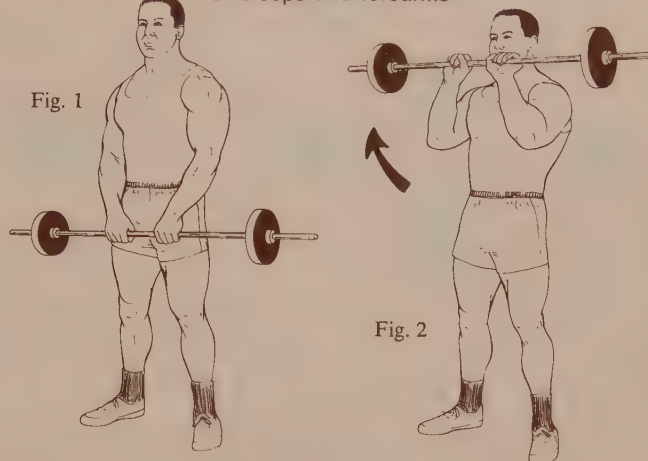
Hold a barbell with both hands using a palms down grip about eighteen inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back straight, legs and hips locked out. As you are lowering the bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Reverse Close Grip Easy Curl Bar Curl Against Wall

Hold an easy curl bar with both hands using a palms down grip on the first curves of the bar. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

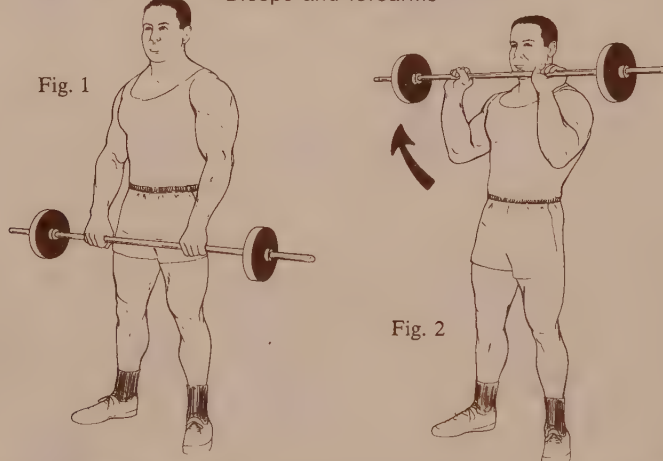
STANDING REVERSE CLOSE GRIP BARBELL CURL

Outer biceps and forearms



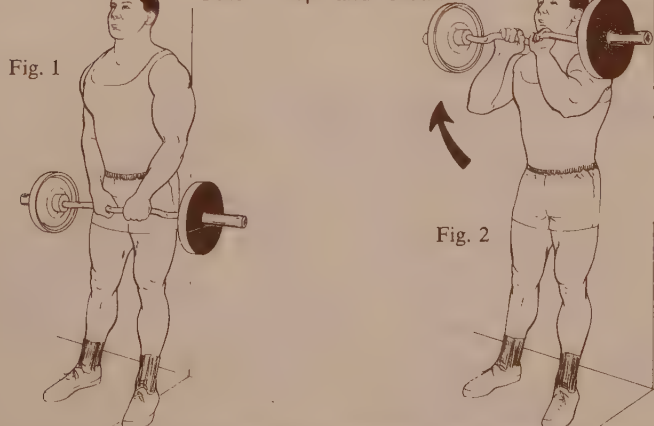
STANDING REVERSE MEDIUM GRIP BARBELL CURL

Biceps and forearms



STANDING REVERSE CLOSE GRIP EASY BAR CURL AGAINST WALL

Outer biceps and forearms



FLAT PREACHER BENCH CLOSE GRIP EASY CURL**BAR CURL**

Outer biceps

Fig. 1

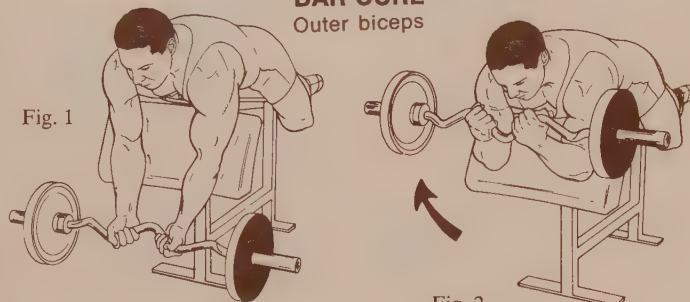


Fig. 2

FLAT PREACHER BENCH MEDIUM GRIP EASY CURL**BAR CURL**

Biceps

Fig. 1

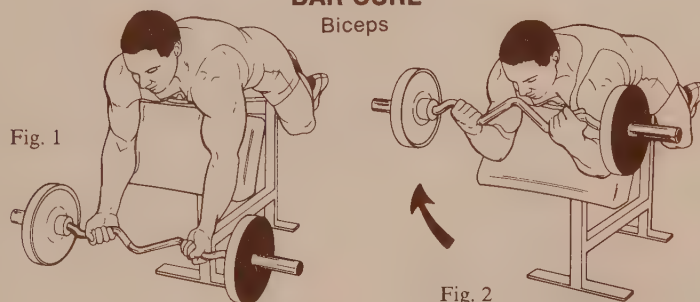


Fig. 2

FLAT PREACHER BENCH REVERSE CLOSE GRIP**EASY CURL BAR CURL**

Outer biceps and forearms

Fig. 1

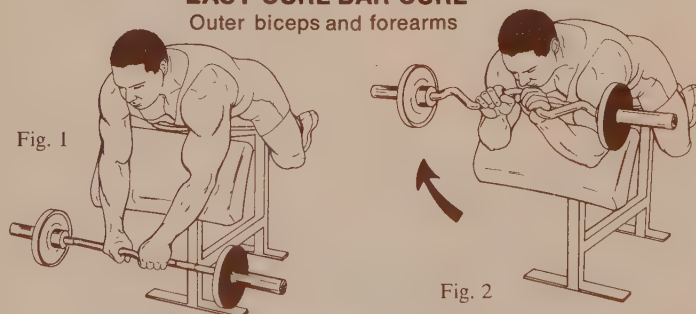


Fig. 2

FLAT PREACHER BENCH REVERSE MEDIUM GRIP**EASY CURL BAR CURL**

Biceps and forearms

Fig. 1

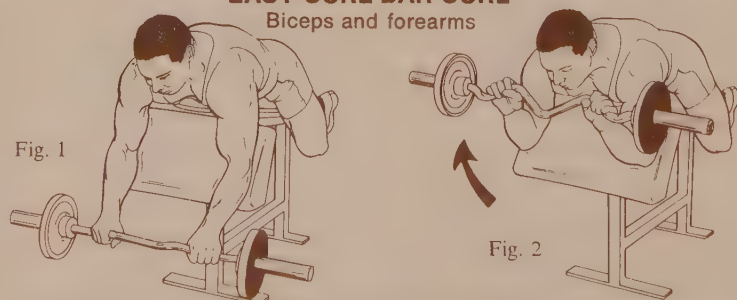


Fig. 2

■ Standing Reverse Medium Grip Easy Curl Bar Curl Against Wall

Forearms and biceps

Hold an easy curl bar with both hands using a palms down grip on the medium hand spacing curves. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Flat Preacher Bench Close Grip Easy Curl Bar Curl

Hold an easy curl bar with both hands using a palms up grip on the first curves of the bar. Lie face forward on a flat preacher bench. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Medium Grip Easy Curl Bar Curl

Hold an easy curl bar with both hands using a palms up grip on the medium hand spacing curves. Lie face forward on a flat preacher bench. Support your upper arms against the pads provided and try to keep your upper arms from moving outward as you curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Reverse Close Grip Easy Curl Bar Curl

Hold an easy curl bar with both hands using a palms down grip on the first curves of the bar. Lie face forward on a flat preacher bench. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Reverse Medium Grip Easy Curl Bar Curl

Hold an easy curl bar with both hands using a palms down grip on the first curves of the bar. Lie face forward on a flat preacher bench. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Close Grip Barbell Curl

Lie face forward on a flat preacher bench. Grasp a barbell with both hands using a palms up grip about twelve inches apart. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Medium Grip Barbell Curl

Lie face forward on a flat preacher bench. Grasp a barbell with both hands using a palms up grip about sixteen inches apart. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Wide Grip Barbell Curl

Lie face forward on a flat preacher bench. Grasp a barbell with both hands using a palms up grip about twenty-four inches apart. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

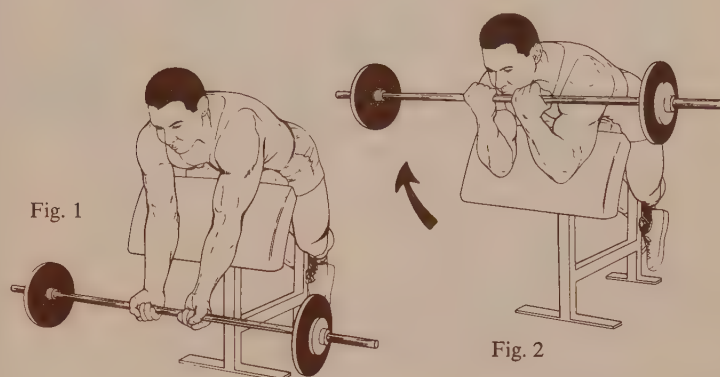
■ Flat Preacher Bench Reverse Close Grip Barbell Curl

Forearms and biceps

Lie face forward on a flat preacher bench. Grasp a barbell with both hands using a

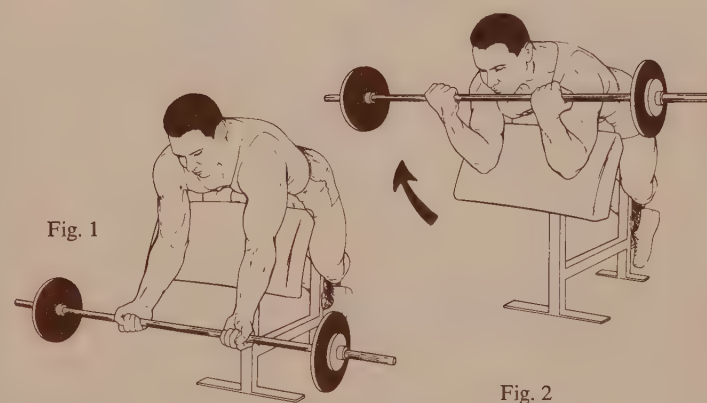
FLAT PREACHER BENCH CLOSE GRIP BARBELL CURL

Outer biceps



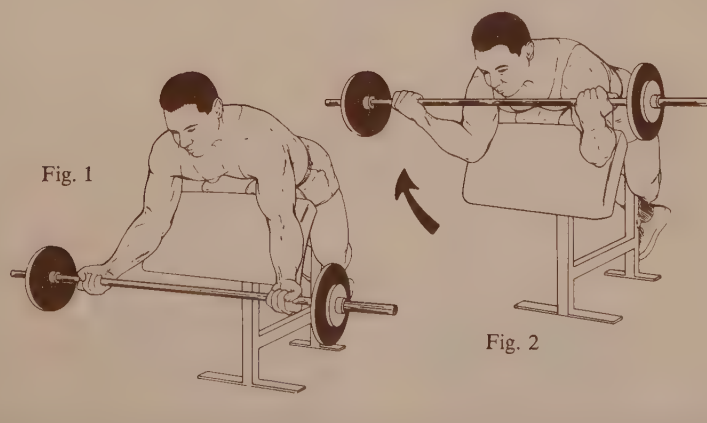
FLAT PREACHER BENCH MEDIUM GRIP BARBELL CURL

Biceps



FLAT PREACHER BENCH WIDE GRIP BARBELL CURL

Inner biceps



FLAT PREACHER BENCH REVERSE MEDIUM GRIP BARBELL CURL

Biceps and forearms

Fig. 1

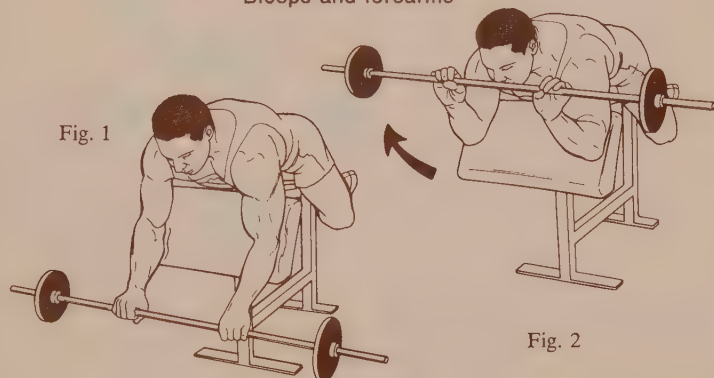


Fig. 2

FLAT PREACHER BENCH REVERSE WIDE GRIP BARBELL CURL

Inner biceps and forearms

Fig. 1

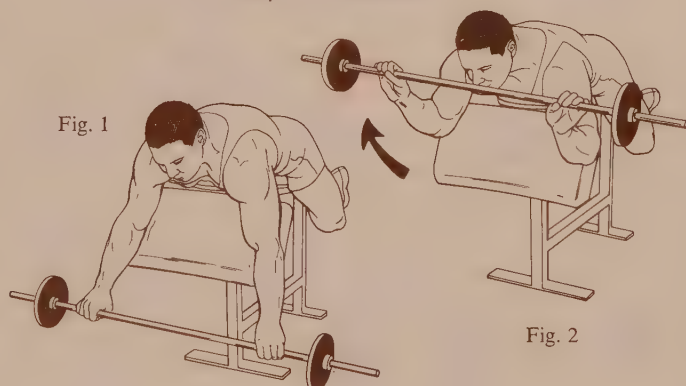


Fig. 2

SCOTT BENCH CLOSE GRIP BARBELL CURL

Outer biceps

Fig. 1

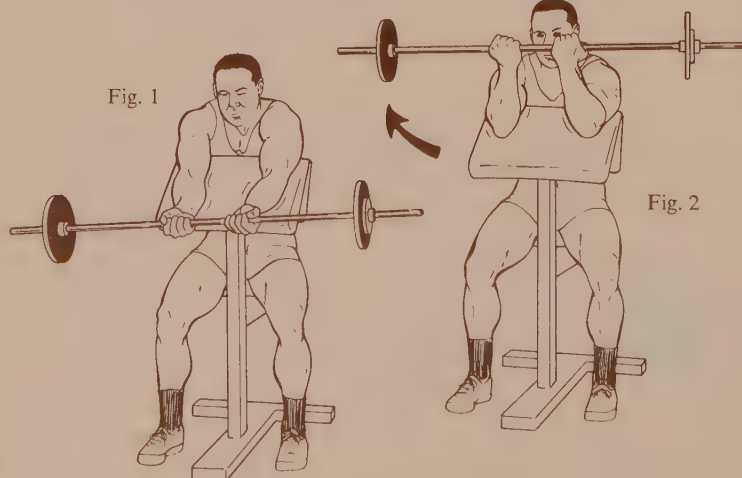


Fig. 2

palms down grip about twelve inches apart. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Reverse Medium Grip Barbell Curl

Lie face forward on a flat preacher bench. Grasp a barbell with both hands using a palms down grip about sixteen inches apart. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Flat Preacher Bench Reverse Wide Grip Barbell Curl

Lie face forward on a flat preacher bench. Grasp a barbell with both hands using a palms down grip about twenty-four inches apart. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Scott Bench Close Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about twelve inches apart. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Scott Bench Medium Grip Barbell Curl

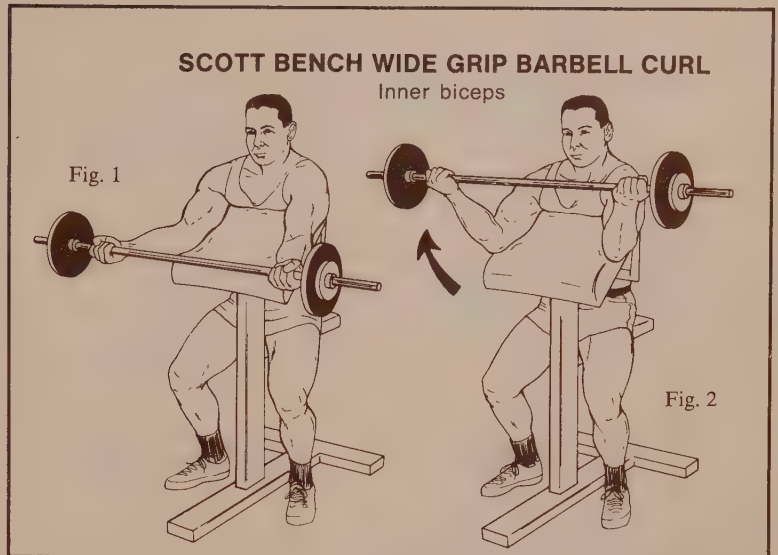
Biceps

Grasp a barbell with both hands using a palms up grip about sixteen inches apart. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the bar upward in a

semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

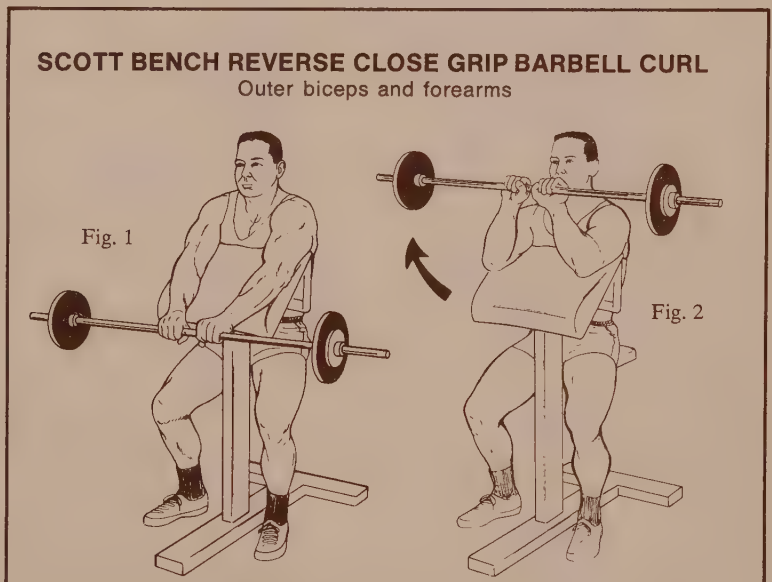
■ Scott Bench Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms up grip about twenty-four inches apart. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.



■ Scott Bench Reverse Close Grip Barbell Curl

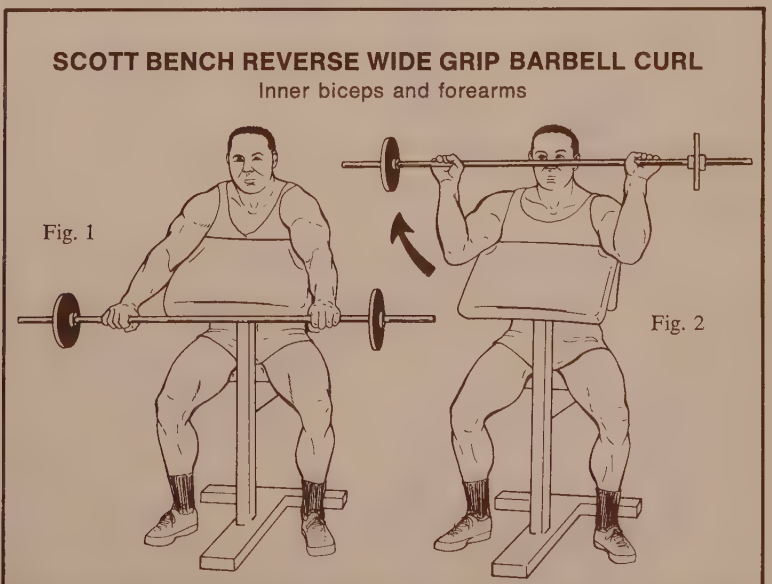
Grasp a barbell with both hands using a palms down grip about twelve inches apart. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.



■ Scott Bench Reverse Medium Grip Barbell Curl

Forearms and biceps

Grasp a barbell with both hands using a palms down grip about sixteen inches apart. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

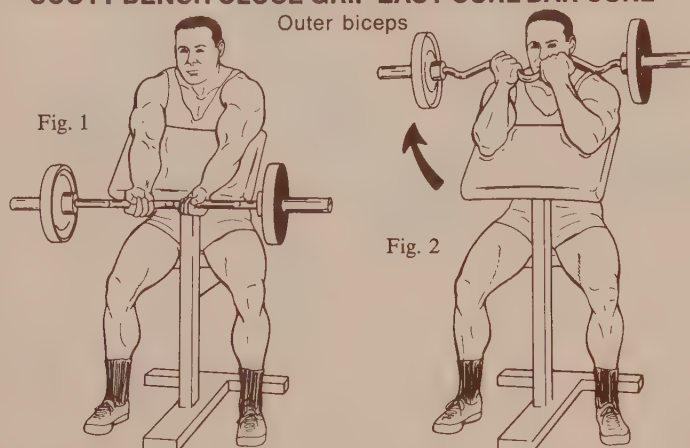


■ Scott Bench Reverse Wide Grip Barbell Curl

Grasp a barbell with both hands using a palms down grip about twenty-four inches apart. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

SCOTT BENCH CLOSE GRIP EASY CURL BAR CURL

Outer biceps

**■ Scott Bench Close Grip Easy Curl Bar Curl**

Hold an easy curl bar with both hands using a palms up grip on the first curves of the bar. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

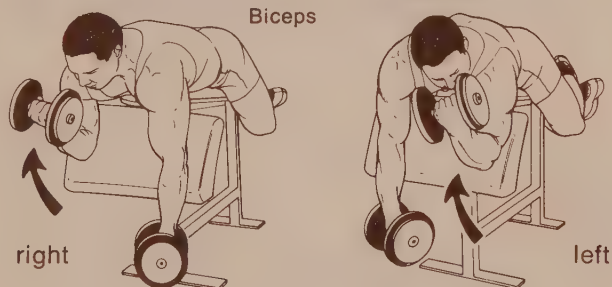
■ Scott Bench Medium Grip Easy Curl Bar Curl

Biceps

Hold an easy curl bar with both hands using a palms up grip on the medium hand spacing curves. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

FLAT PREACHER BENCH ALT. DUMBBELL CURL

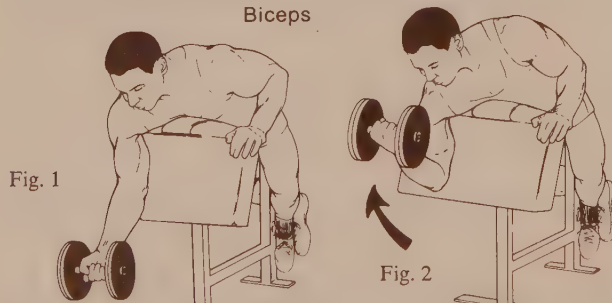
Biceps

**■ Flat Preacher Bench Alternated Dumbbell Curl**

Lie face forward on a flat preacher bench. Hold a dumbbell in each hand using a palms up grip. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the dumbbell in your right hand upward in a semicircular motion until your right forearm and biceps touch. Return to starting position and exhale. Now curl the dumbbell in your left hand in a similar manner and return to starting position and exhale. Go back and forth from right hand to left hand until the prescribed number of repetitions are completed.

FLAT PREACHER BENCH ONE DUMBBELL CURL

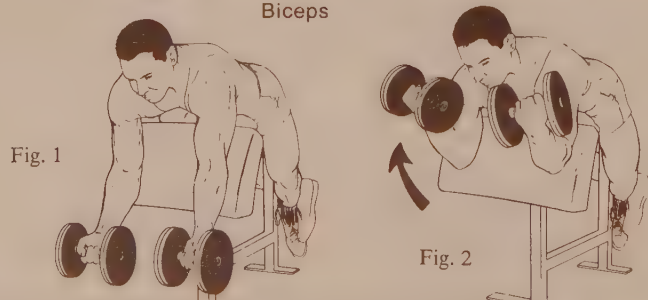
Biceps

**■ Flat Preacher Bench One Dumbbell Curl**

Lie face forward on a flat preacher bench. Hold a dumbbell in your right hand using a palms up grip. Support your upper right arm against the pad provided and try to keep your upper arm from moving outward as you curl the dumbbell upward in a semicircular motion until your right forearm and biceps touch. Return to starting position and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

FLAT PREACHER BENCH TWO DUMBBELL CURL

Biceps

**■ Flat Preacher Bench Two Dumbbell Curl**

Lie face forward on a flat preacher bench. Hold a dumbbell in each hand using a

palms up grip. Support your upper arms against the pad provided and try to keep your upper arms from moving outward as you curl the dumbbell upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

■ Kneeling One Arm Dumbbell Curl Against Low Preacher Bench

Hold a dumbbell in your right hand using a palms up grip. Kneel down on the left side of a low preacher curl bench and place your right upper arm against the pad provided. With the dumbbell held at arm's length, palm facing up, inhale and curl the weight upward in a semicircular motion until your biceps and forearm touch. Return the weight to starting position and exhale. Do the prescribed number of repetitions with your right arm and then change positions to the other side of the bench and do the same number of repetitions with your left arm.

▲ Standing One Arm Dumbbell Curl Over Incline Bench

Hold a dumbbell in your right hand and step behind an incline bench and place your right arm over the incline. Extend your arm down until it is resting on the incline with your palm facing up. Inhale and curl the dumbbell upward until your forearm and biceps touch. Your upper arm will remain on the bench throughout the exercise. Return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions doing the same number of repetitions with your left hand.

▲ Lying One Arm Biceps Curl on High Pulley

Grasp the top pulley cable handle of a wall pulley with your right hand and lie down in a supine position in front of the pulley with your head closest to the machine. Lie far enough from the machine to enable your arms to support the weight stack with your arm locked out and vertical with the floor and the palm of your hand facing the machine. Inhale and curl the handle down to your chin in a semicircular motion, keeping your upper arm in a vertical position throughout the exercise. Return to starting position using a similar path of motion and exhale. Do the prescribed number of repetitions with your right hand and then change positions doing the same number of repetitions with your left hand.

KNEELING ONE ARM DUMBBELL CURL AGAINST LOW PREACHER BENCH

Biceps



Fig. 1



Fig. 2

STANDING ONE ARM DUMBBELL CURL OVER INCLINE BENCH

Biceps

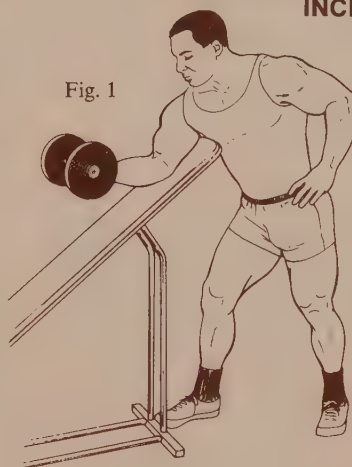


Fig. 1

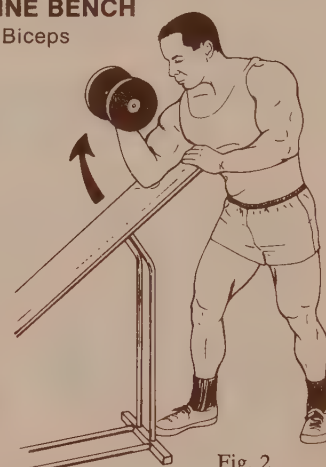


Fig. 2

LYING ONE ARM BICEPS CURL ON HIGH PULLEY

Biceps

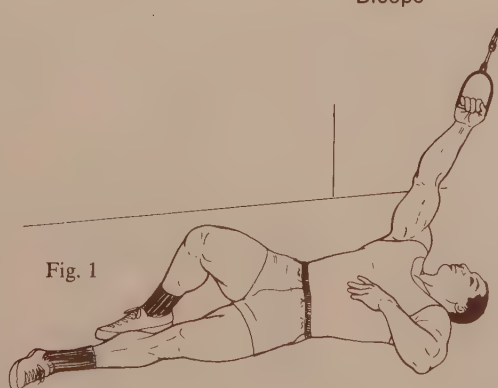


Fig. 1

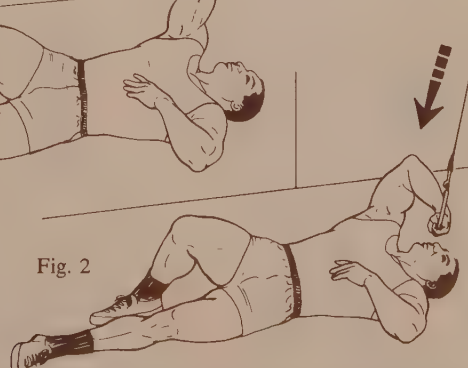
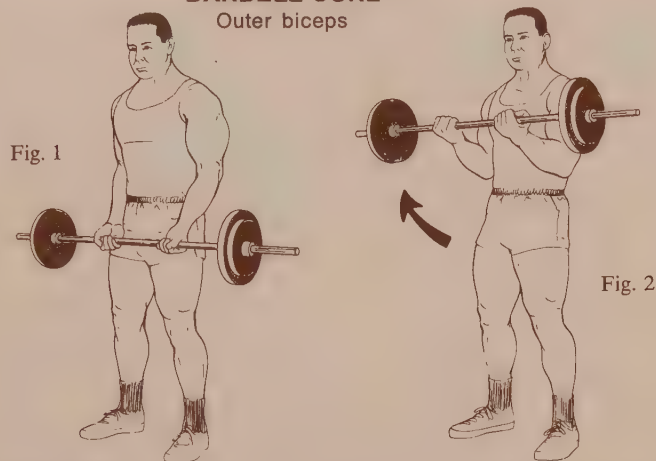


Fig. 2

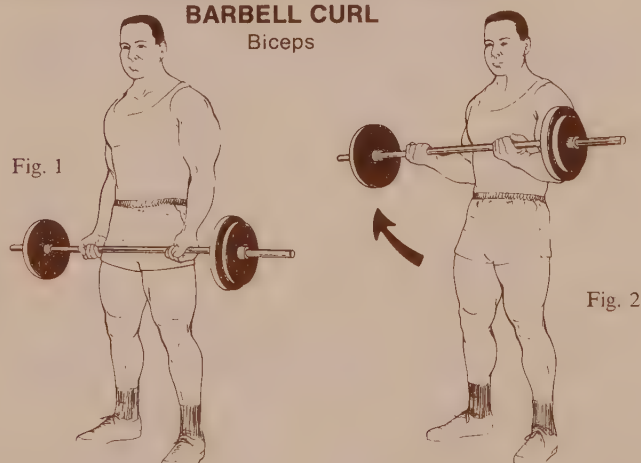
STANDING CLOSE GRIP RUN THE RACK BARBELL CURL

Outer biceps



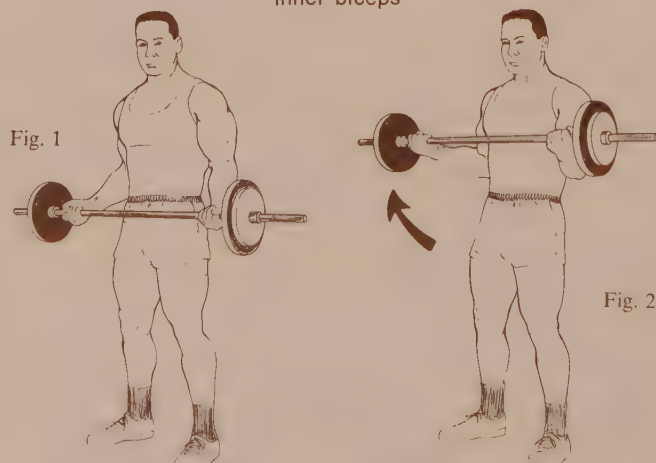
STANDING MEDIUM GRIP RUN THE RACK BARBELL CURL

Biceps



STANDING WIDE GRIP RUN THE RACK BARBELL CURL

Inner biceps



★ Standing Close Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms up grip about eight inches apart. Stand erect with your back straight, head up, hips and legs locked out, with a barbell at arm's length resting against your upper thighs. Inhale and curl the bar up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

★ Standing Medium Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms up grip about sixteen inches apart. Stand erect with your back straight, head up, hips and legs locked out, with a barbell at arm's length resting against your upper thighs. Inhale and curl the bar up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

★ Standing Wide Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms up grip about twenty-four inches apart. Stand erect with your back straight, head up, hips and legs locked out, with a barbell

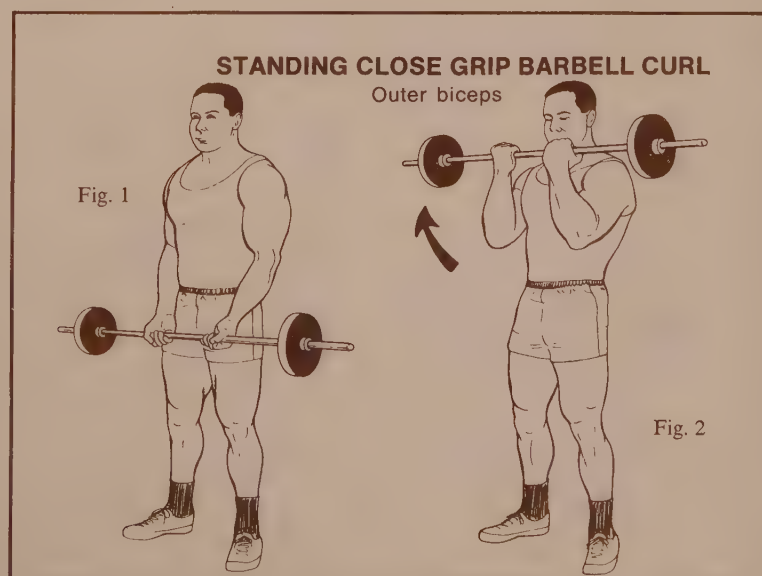
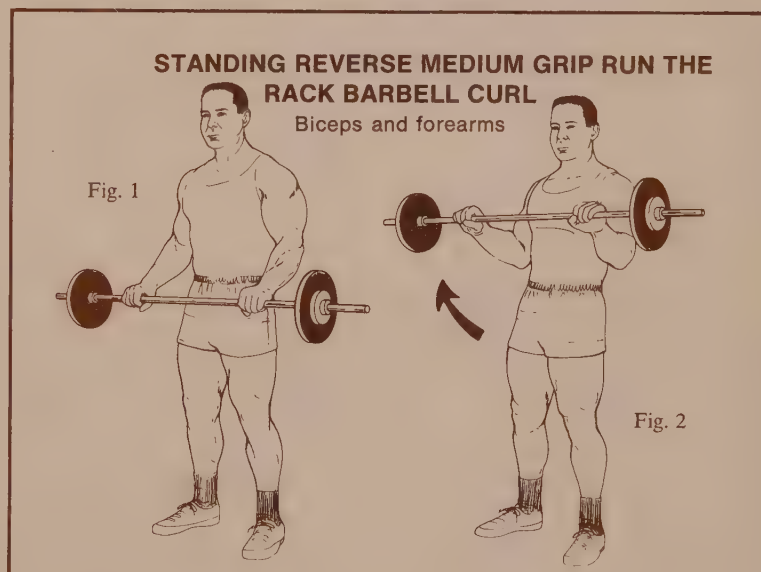
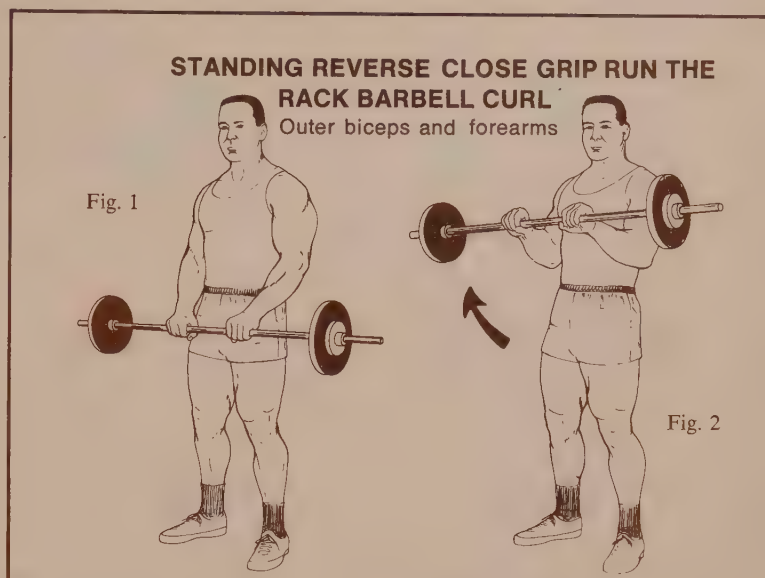
at arm's length resting against your upper thighs. Inhale and curl the bar up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

★ Standing Reverse Close Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms down grip about eight inches apart. Stand erect with your back straight, head up, hips and legs locked out, with a barbell at arm's length resting against your upper thighs. Inhale and curl the bar up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.

★ Standing Reverse Medium Grip Run The Rack Barbell Curl

This type of exercise is good for shaping the biceps or to improve their muscle tone but it is not recommended for someone interested in enlarging the muscle's size. The object of the exercise is to start at the lighter end of a barbell rack and grasp a light barbell with both hands using a palms down grip about sixteen inches apart. Stand erect with your back straight, head up, hips and legs locked out, with a barbell at arm's length resting against your upper thighs. Inhale and curl the bar up to shoulder height causing your forearms and biceps to touch. Return to starting position and exhale. Perform four to six repetitions with the first barbell. Upon completion, immediately replace the weight to the rack and repeat the exercise with a heavier barbell. Continue increasing the weight each set until you are unable to perform one repetition.



STANDING MEDIUM GRIP BARBELL CURL

Biceps

Fig. 1

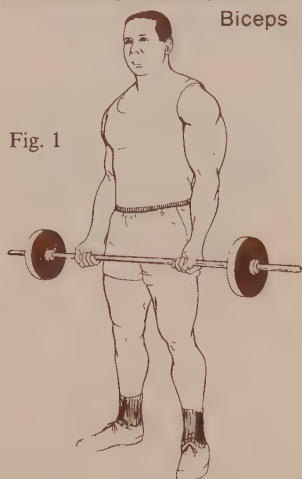
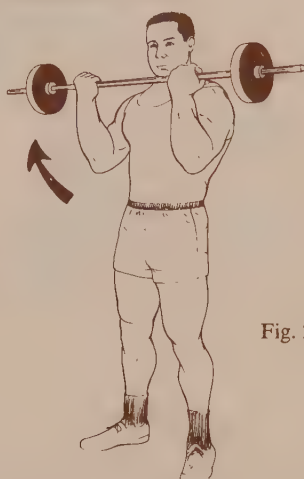


Fig. 2

**STANDING WIDE GRIP BARBELL CURL**

Inner biceps

Fig. 1

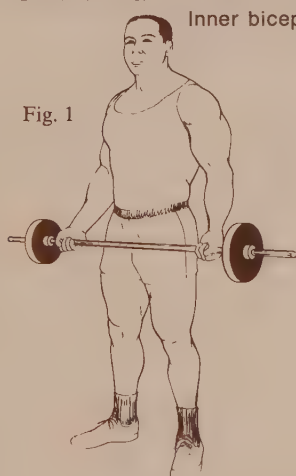
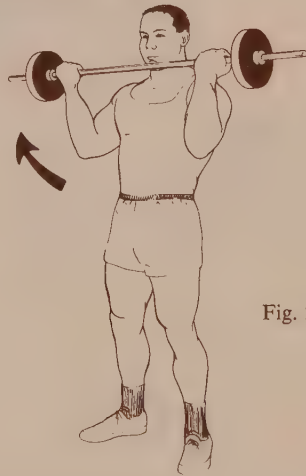


Fig. 2

**STANDING CLOSE GRIP BARBELL CURL
AGAINST WALL**

Outer biceps

Fig. 1

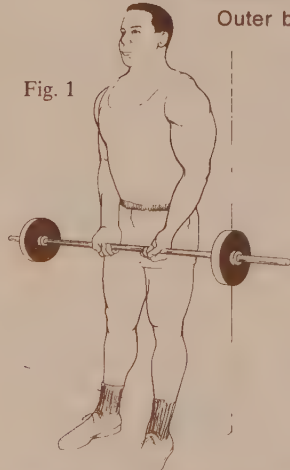
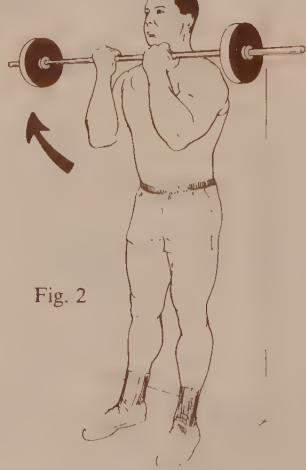


Fig. 2

**▲ Standing Close Grip Barbell Curl**

Hold a barbell with both hands using a palms up grip about twelve inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back straight, legs and hips locked out. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

▲ Standing Medium Grip Barbell Curl

Hold a barbell with both hands using a palms up grip about eighteen inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back straight, legs and hips locked out. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

▲ Standing Wide Grip Barbell Curl

Hold a barbell with both hands using a palms up grip about twenty-six inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back straight, legs and hips locked out. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

**■ Standing Close Grip Barbell Curl
Against Wall**

Hold a barbell with both hands using a palms up grip about twelve inches apart. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Medium Grip Barbell Curl Against Wall

Biceps

Hold a barbell with both hands using a palms up grip about eighteen inches apart. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Wide Grip Barbell Curl Against Wall

Hold a barbell with both hands using a palms up grip about twenty-six inches apart. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Alternated Dumbbell Cheat Curl

Hold a dumbbell in each hand as you stand erect with your feet about sixteen inches apart. With the dumbbells at arm's length against your outer thighs and your palms facing in, curl the dumbbell in your right hand up to the height of your right shoulder using your biceps and rocking back slightly to bring your lower back into play. As you commence to lower the dumbbell in your right hand back to starting position, then begin to curl the dumbbell in your left hand. You must get a rhythm going as the weights are being curled. As you commence each curl and the dumbbells are past your thighs, then turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near the upper thigh before turning the palms in again. Inhale as you curl with your right hand and exhale as you curl with your left hand.

■ Standing Dumbbell Cheat Curl

Hold a dumbbell in each hand as you stand erect with your feet about sixteen inches

STANDING WIDE GRIP BARBELL CURL AGAINST WALL

Inner biceps

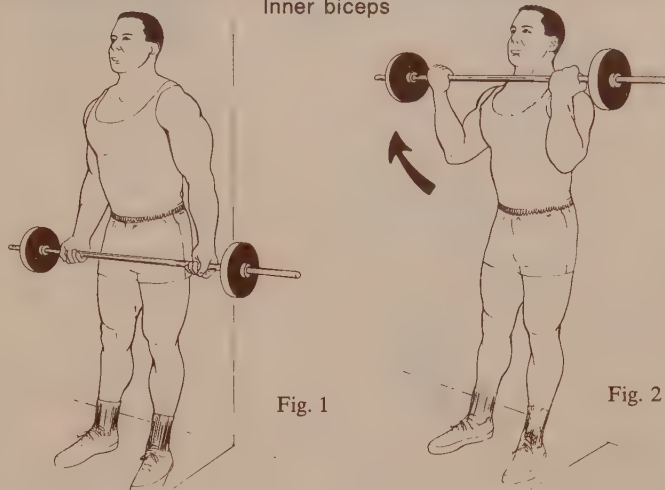


Fig. 1

Fig. 2

STANDING ALTERNATED DUMBBELL CHEAT CURL

Biceps and lower back

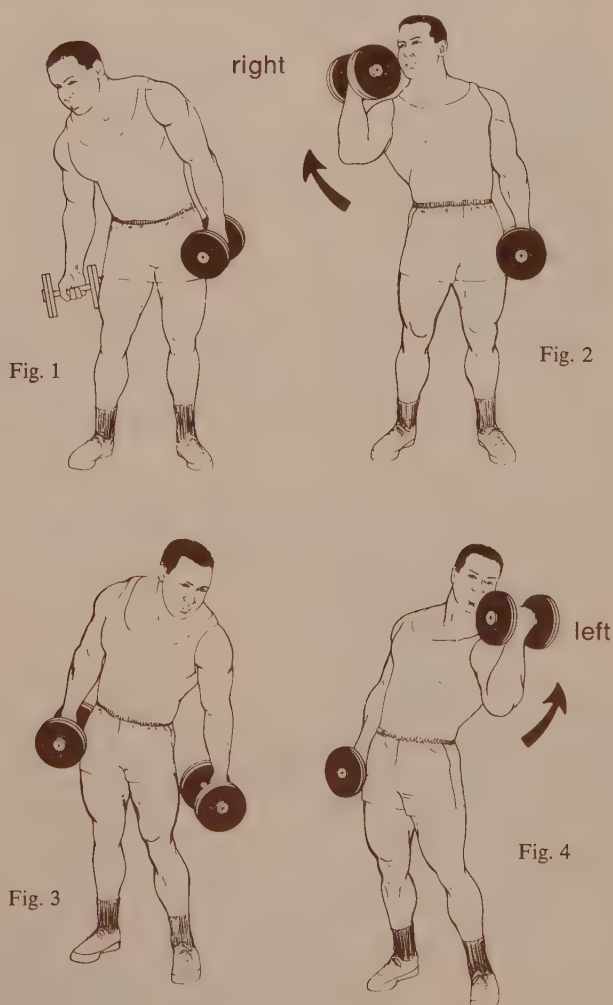


Fig. 1

Fig. 2

Fig. 3

Fig. 4

STANDING DUMBBELL CHEAT CURL

Biceps and lower back

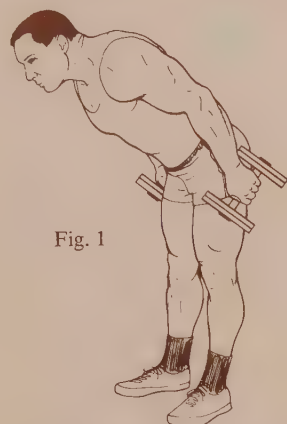


Fig. 1

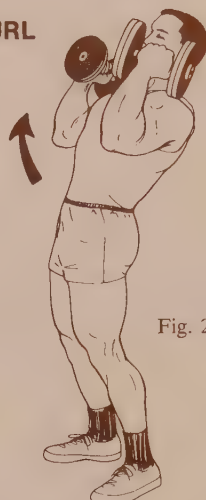


Fig. 2

apart. With the dumbbells at arm's length against your outer thighs and your palms facing in, inhale and curl the dumbbells up to the height of your shoulders using your biceps and rocking back slightly to bring your lower back into play. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this up position throughout the exercise until you are lowering the weights and again near the upper thighs before turning the palms in again. As you are lowering the dumbbells back to starting position, do so in a controlled manner causing the biceps to resist the weights as much as possible. Exhale as you return to starting position.

SEATED MEDIUM GRIP CURL ON BICEPS MACHINE

Biceps

Fig. 1

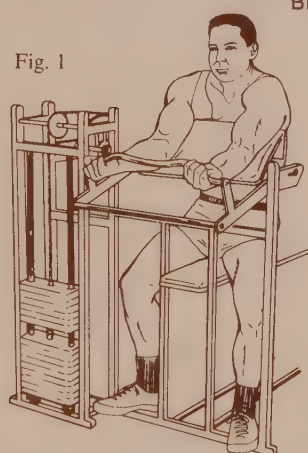
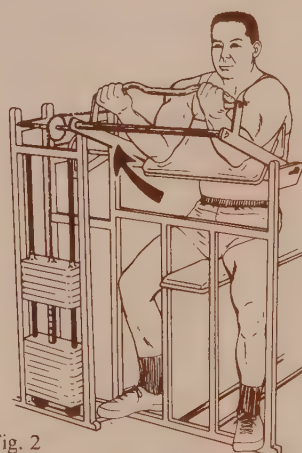


Fig. 2

**▲ Seated Close Grip Curl on Biceps Machine**

Outer biceps

Sit on the seat of a biceps curling machine and grasp the first curves of the curling bar with a palms up grip. If the machine has a straight bar, use a palms up grip about six to eight inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Seated Medium Grip Curl on Biceps Machine

Sit on the seat of a biceps curling machine and grasp the medium hand spacing curves with a palms up grip. If the machine has a straight bar, use a palms up grip about sixteen inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

SEATED CONCENTRATED BAR CURL ON LOW PULLEY

Outer biceps

Fig. 1

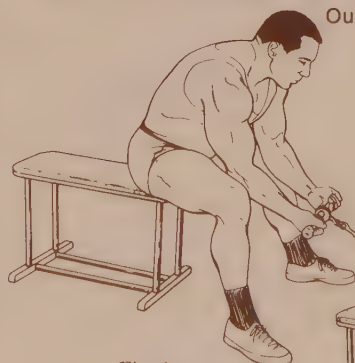
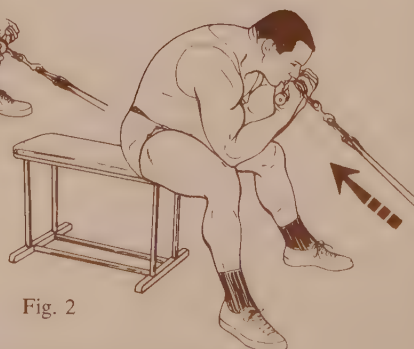


Fig. 2

**■ Seated Concentrated Bar Curl on Low Pulley**

Place a flat bench or stool in front of a pulley that has one or two lower pulley cables. Attach a short bar on the pulley cable and grasp the bar with both hands using a palms up grip about six inches apart. Sit far enough from the machine to allow your arms to support the weight stack

when you are sitting on the bench with your feet about twenty-four inches apart and spread outward. Rest your elbows against your inner thighs about four inches up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch. Return to starting position and exhale.

■ Squatting Concentrated Bar Curl on Low Pulley

Stand in front of a pulley that has one or two lower pulley cables. Attach a short bar on the pulley cable and grasp the bar with both hands using a palms up grip about six inches apart. Stand far enough from the machine to allow your arms to support the weight stack when you squat down until your upper thighs are parallel with the floor and spread apart. Rest your elbows against your inner thighs about four inches from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch. Return to starting position and exhale.

▲ Seated Close Grip Concentrated Barbell Curl

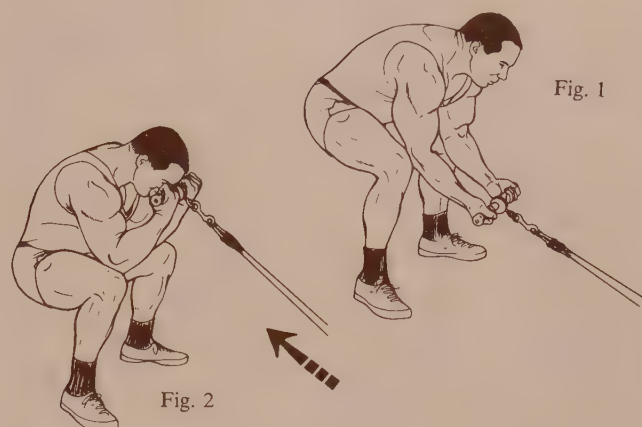
Place a barbell on the floor near the end of a flat bench. Sit on the end of the bench with your feet about twenty-four inches apart and bend forward at the waist. Grasp the barbell with both hands using a palms up grip about six inches apart. Rest your elbows against your inner thighs about four inches up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch. Return to starting position and exhale. Do not let the barbell touch the floor while doing the exercise.

▲ Squatting Close Grip Concentrated Barbell Curl

Grasp a barbell with both hands using a palms up grip about six inches apart. With your feet about twenty-four inches apart, squat down until your upper thighs are parallel with the floor and spread apart. Rest your elbows against your inner thighs about four inches up from your knees. Inhale and curl the bar upward in a semicircular motion until your biceps and forearms touch. Return to starting position and exhale. Do not let the barbell touch the floor while doing the exercise.

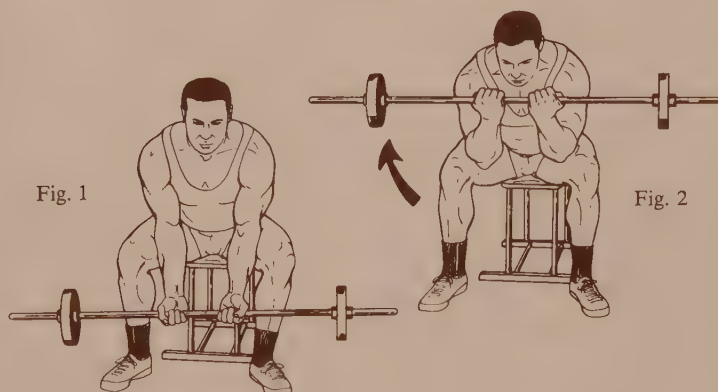
SQUATTING CONCENTRATED BAR CURL ON LOW PULLEY

Outer biceps



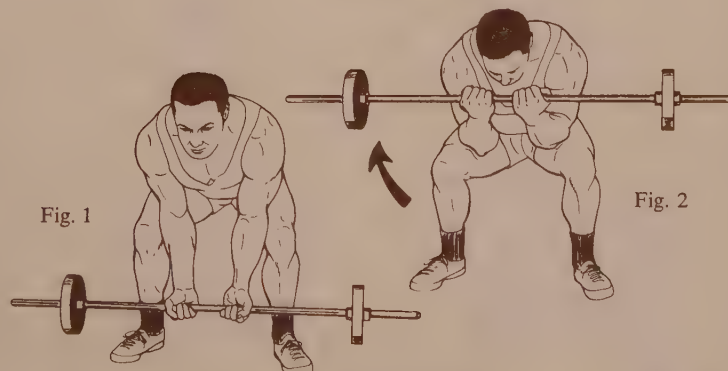
SEATED CLOSE GRIP CONCENTRATED BARBELL CURL

Outer biceps



SQUATTING CLOSE GRIP CONCENTRATED BARBELL CURL

Outer biceps

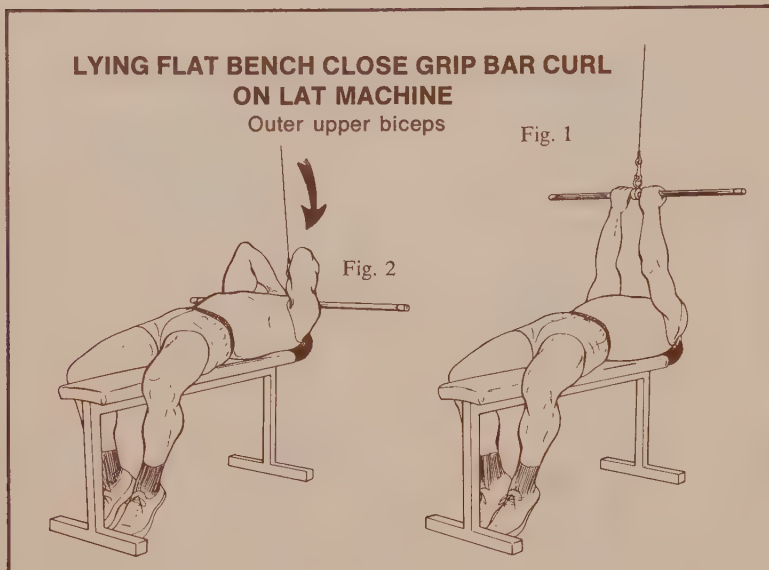


LYING FLAT BENCH CLOSE GRIP BAR CURL ON LAT MACHINE

Outer upper biceps

Fig. 1

Fig. 2

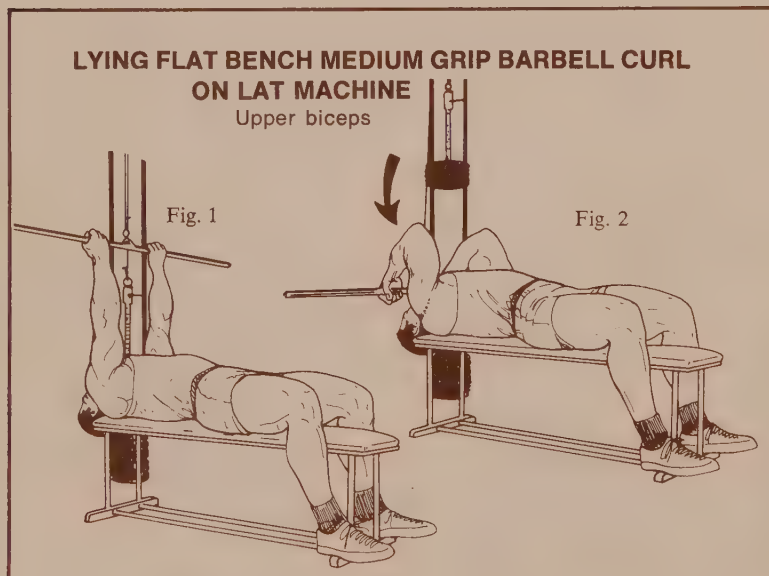


LYING FLAT BENCH MEDIUM GRIP BARBELL CURL ON LAT MACHINE

Upper biceps

Fig. 1

Fig. 2

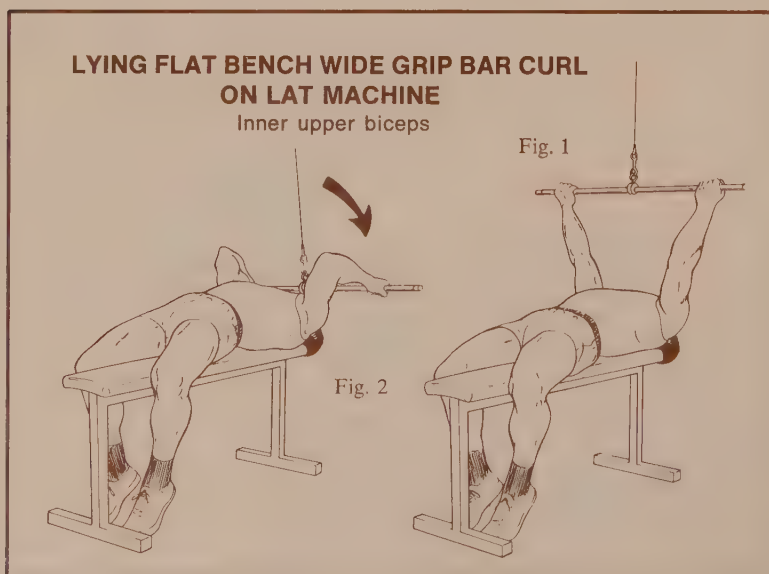


LYING FLAT BENCH WIDE GRIP BAR CURL ON LAT MACHINE

Inner upper biceps

Fig. 1

Fig. 2



▲ Lying Flat Bench Close Grip Bar Curl on Lat Machine

Place a flat bench below the bar of a lat machine with the end of the bench about six inches behind the bar. Grasp the bar with both hands using a palms forward grip about six inches apart. Lie supine on the bench with your head over the end of the bench and pointing down. Extend your arms above your shoulders until they are vertical. Inhale and curl the bar down to your chin by bending your arms at the elbows but keeping your upper arms in a vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Lying Flat Bench Medium Grip Bar Curl on Lat Machine

Place a flat bench below the bar of a lat machine with the end of the bench about six inches behind the bar. Grasp the bar with both hands using a palms forward grip about fourteen inches apart. Lie supine on the bench with your head over the end of the bench and pointing down. Extend your arms above your shoulders until they are vertical. Inhale and curl the bar down to your chin by bending your arms at the elbows but keeping your upper arms in a vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Lying Flat Bench Wide Grip Bar Curl on Lat Machine

Place a flat bench below the bar of a lat machine with the end of the bench about six inches behind the bar. Grasp the bar with both hands using a palms forward grip about thirty-two inches apart. Lie supine on the bench with your head over the end of the bench and pointing down. Extend your arms above your shoulders until they are vertical. Inhale and curl the bar down to your chin by bending your arms at the elbows but keeping your upper arms in a vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Standing One Arm Curl on Low Pulley

Stand in front of a pulley that has two lower pulley cable handles. Grasp the right pulley cable handle with your right hand using a palms up grip. Stand far enough from the machine to allow your arm to support the weight stack with your arm at your side and

your palm facing towards your thigh. Inhale and curl the handle upward in a semicircular motion but be sure to turn your palm upward once your hand is clear of your thigh. Keep your palm facing upward throughout the exercise until you are nearing your thigh at the return of the exercise and again turn it in facing your thigh. Curl the handle until your biceps and forearm are touching. Be sure you keep your upper arm to your side and do not raise it any more than is necessary. Exhale as you return to starting position.

▲ Standing Two Arm Curl on Low Pulley

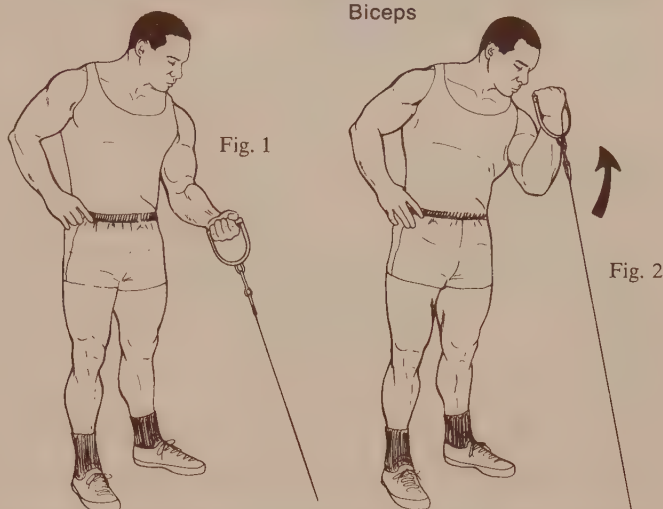
Stand in front of a pulley that has two lower pulley cable handles. Grasp a pulley cable handle with each hand using a palms up grip. Stand far enough from the machine to allow your arms to support the weight stacks with your arms at your sides and your palms facing towards your thighs. Inhale and curl the handles upward in a semicircular motion but be sure to turn your palms upward once your hands are clear of your thighs. Keep your palms facing upward throughout the exercise until you are nearing your thighs at the return of the exercise and again turn them in facing your thighs. Curl the handles until your biceps and forearms are touching. Be sure you keep your upper arms to your sides and do not raise them any more than is necessary. Exhale as you return to starting position.

▲ Standing Alternated Curl on Low Pulley

Stand in front of a pulley that has two lower pulley cable handles. Grasp a pulley cable handle with each hand using a palms up grip. Stand far enough from the machine to allow your arms to support the weight stacks with your arms at your sides and your palms facing towards your thighs. Inhale and curl the handle in your right hand upward in a semicircular motion but be sure to turn your palm upward once your hand is clear of your thigh. Keep your palm facing upward throughout the exercise until you are nearing your thigh at the return of the exercise and again turn it in facing your thigh. Curl the handle until your biceps and forearm are touching. Be sure to keep your upper arm to your side and do not raise it any more than is necessary. Exhale as you return to starting position. Now curl the handle in your left hand in a similar manner. Continue going from right arm to left arm until the prescribed number of repetitions are completed.

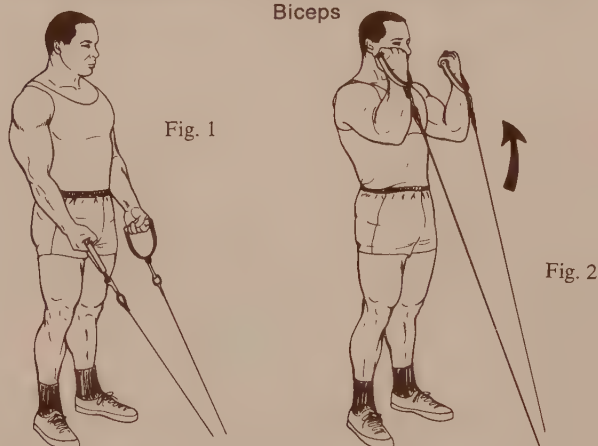
STANDING ONE ARM CURL ON LOW PULLEY

Biceps



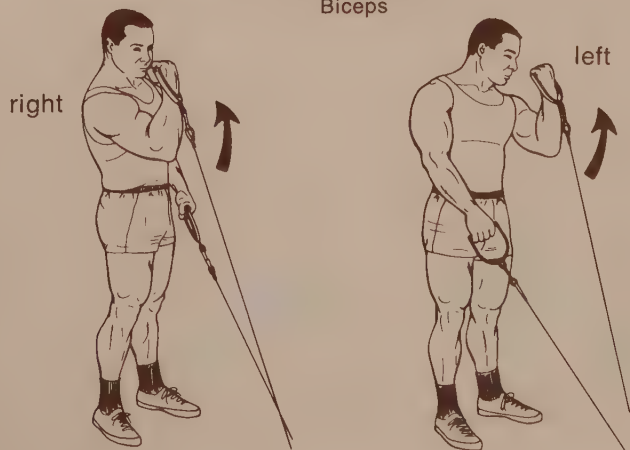
STANDING TWO ARM CURL ON LOW PULLEY

Biceps



STANDING ALTERNATED CURL ON LOW PULLEY

Biceps



LYING DECLINE MEDIUM GRIP BAR CURL ON HIGH PULLEY

Main biceps

Fig. 1

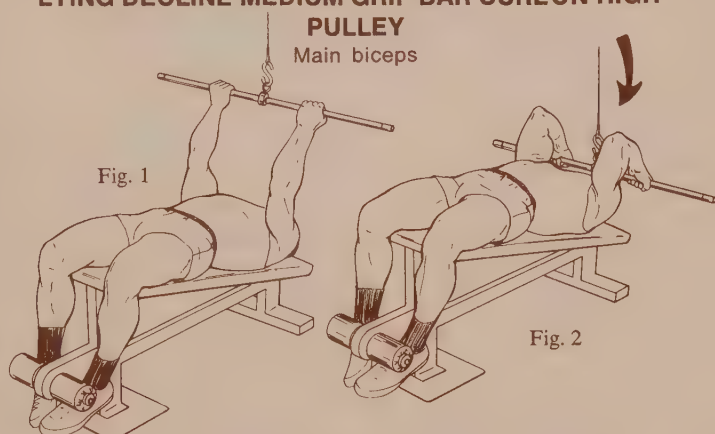


Fig. 2

▲ Lying Decline Medium Grip Bar Curl on High Pulley

Position a decline bench in front of a high pulley with the high end of the bench closest to the pulley. Attach a straight bar to the high pulley cable and grasp the bar with both hands using a palms up grip about sixteen inches apart. Lie back on the decline bench with your arms extended and nearly parallel with your body. From this position your arms should be supporting the weight stack and have no slack in the cable. Inhale and curl the bar towards your chin until your forearms and biceps are touching. Keep your upper arms in close to your sides and parallel throughout the exercise. Return to starting position and exhale.

LYING DECLINE CLOSE GRIP BAR CURL ON HIGH PULLEY

Outer biceps

Fig. 1

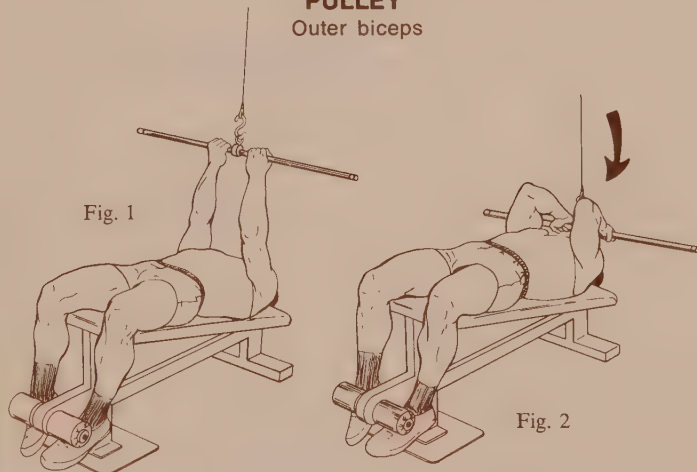


Fig. 2

▲ Lying Decline Close Grip Bar Curl on High Pulley

Position a decline bench in front of a high pulley with the high end of the bench closest to the pulley. Attach a straight bar to the high pulley cable and grasp the bar with both hands using a palms up grip about eight inches apart. Lie back on the decline bench with your arms extended and nearly parallel with your body. From this position your arms should be supporting the weight stack and have no slack in the cable. Inhale and curl the bar towards your chin until your forearms and biceps are touching. Keep your upper arms in close to your sides and parallel throughout the exercise. Return to starting position and exhale.

LYING DECLINE WIDE GRIP BAR CURL ON HIGH PULLEY

Inner biceps

Fig. 1

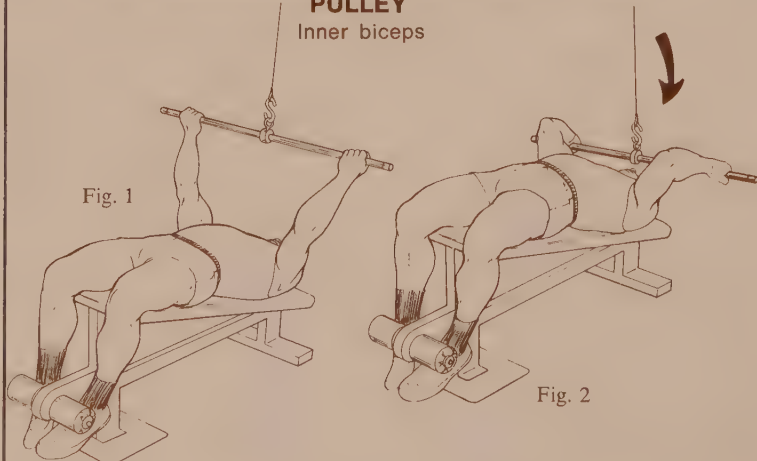


Fig. 2

▲ Lying Decline Wide Grip Bar Curl on High Pulley

Position a decline bench in front of a high pulley with the high end of the bench closest to the pulley. Attach a straight bar to the high pulley cable and grasp the bar with both hands using a palms up grip about twenty-four inches apart. Lie back on the decline bench with your arms extended and nearly parallel with your body. From this position your arms should be supporting the weight stack and have no slack in the cable. Inhale and curl the bar towards your chin until your forearms and biceps are touching. Keep your upper arms in close to your sides and parallel throughout the exercise. Return to starting position and exhale.

▲ Lying Decline Reverse Close Grip Bar Curl on High Pulley

Place a decline bench below a high pulley with the low end of the bench about six

inches behind the bar of the machine. Lie supine on the decline bench with your head down. Grasp the bar of the pulley with both hands using a palms forward grip about six inches wide. Extend your arms above your shoulders until they are vertical. Inhale and reverse curl the bar down to your chin by bending your arms at the elbows but keeping your upper arms in the vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Lying Decline Reverse Medium Grip Bar Curl on High Pulley

Main biceps and Forearms

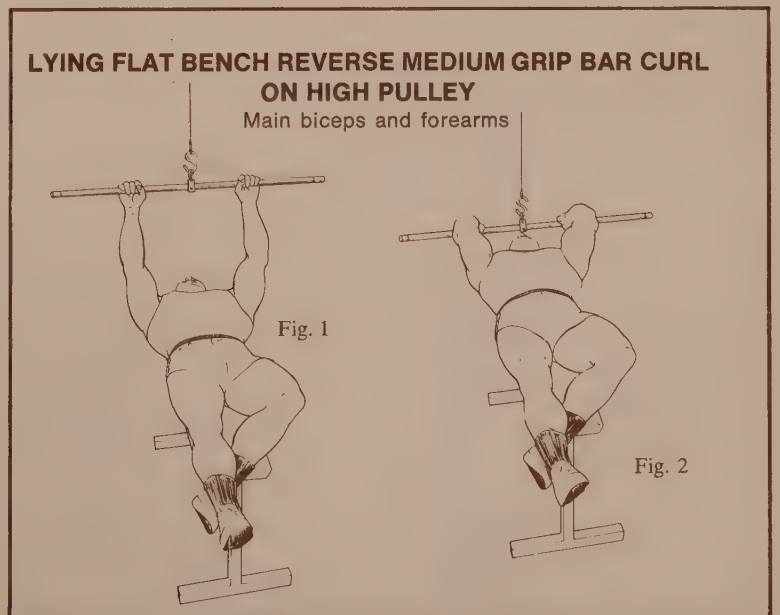
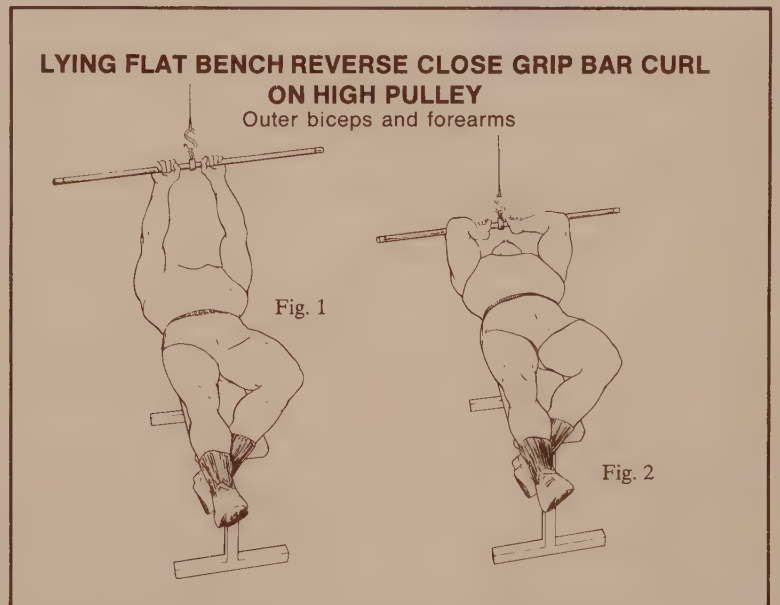
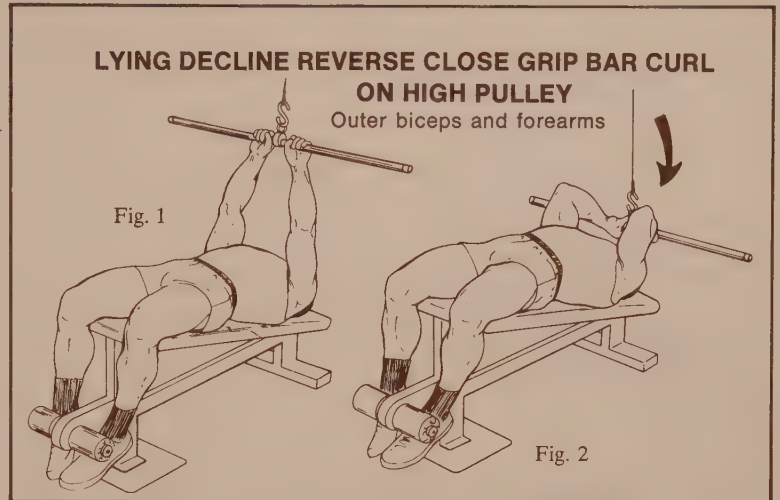
Place a decline bench below a high pulley with the low end of the bench about six inches behind the bar of the machine. Lie supine on the decline bench with your head down. Grasp the bar of the pulley with both hands using a palms away grip about twelve inches wide. Extend your arms above your shoulders until they are vertical. Inhale and reverse curl the bar down to your chin by bending your arms at the elbows but keeping your upper arms in the vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Lying Flat Bench Reverse Close Grip Bar Curl on High Pulley

Place a flat bench below a high pulley with the end of the bench about six inches behind the bar of the machine. Lie supine on the bench with your head over the end of the bench and pointing down. Grasp the bar of the pulley with both hands using a palms away grip about six inches wide. Extend your arms above your shoulders until they are vertical. Inhale and reverse curl the bar down to your chin by bending your arms at the elbows but keeping your upper arms in the vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Lying Flat Bench Reverse Medium Grip Bar Curl on High Pulley

Place a flat bench below a high pulley with the end of the bench about six inches behind the bar of the machine. Lie supine on the bench with your head over the end of the bench and pointing down. Grasp the bar of the pulley with both hands using a palms away grip about twelve inches wide. Extend your arms above your shoulders until they are vertical. Inhale and reverse curl



LYING FLOOR HEAD FORWARD HIGH PULLEY BAR CURL

Upper biceps

Fig. 1

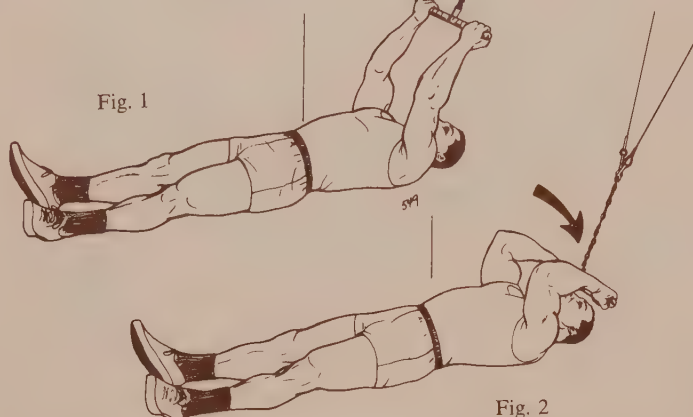


Fig. 2

LYING BAR CURL ON UNIVERSAL MACHINE

Biceps

Fig. 1

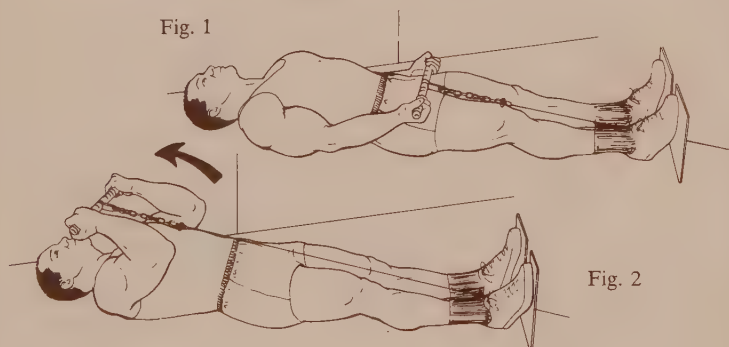


Fig. 2

STANDING REVERSE CLOSE GRIP BAR CURL ON UNIVERSAL MACHINE

Outer biceps and forearms

Fig. 1

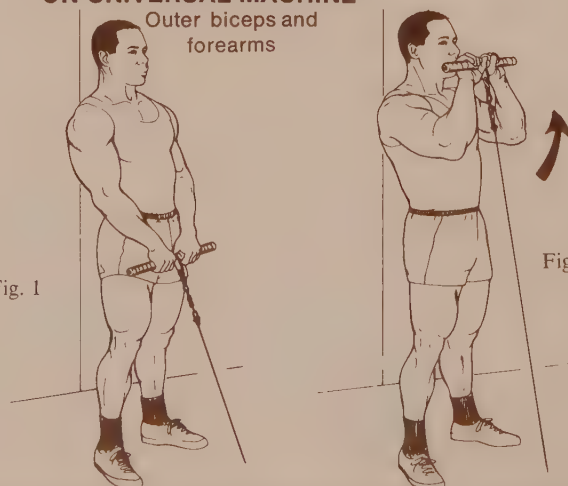


Fig. 2

the bar down to your chin by bending your arms at the elbows but keeping your upper arms in the vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Lying Floor Head Forward High Pulley Bar Curl

Attach a short bar to the two top pulley cables of a wall machine. Lie on the floor in front of the pulley with your head towards the machine. Raise up and grasp the bar with both hands using a palms forward grip about fourteen inches wide. Lie back again and keep your head on the floor as you straighten your arms above your shoulders keeping them in a vertical position. Inhale and curl the bar down to your chin in a semicircular motion by bending your arms at the elbows but keeping your upper arms in the vertical position throughout the exercise. Return the bar to starting position and exhale.

▲ Lying Bar Curl on Universal Machine

On most of the multistation Universal type machines there is one station used mainly for biceps and back exercises. Grasp the short bar that is attached to the lower pulley cable of this station and lie in a supine position with your feet facing the machine but far enough from the machine to allow your arms to support the weight stack with the bar at arm's length using a palms up grip and the bar resting against your upper thighs. Inhale and curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Standing Reverse Close Grip Bar Curl on Universal Machine

On most of the multistation Universal type machines there is one station used mainly for biceps and back exercises. Grasp the short bar that is attached to the lower pulley cable of this station while you are facing the machine. Stand far enough from the machine to allow your arms to support the weight stack with the bar at arm's length using a palms down grip and the bar resting against your upper thighs. Inhale and curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Standing Reverse Close Grip Bar Curl on Low Pulley

Forearms and biceps

Attach a short bar to the two lower pulley cables of a wall pulley. Grasp the short bar while facing the machine. Stand far enough from the pulley to allow your arms to support the weight stacks with the bar at arm's length using a palms down grip. Inhale and reverse curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Standing Bar Curl on Universal Machine

On most of the multistation Universal type machines there is one station used mainly for biceps and back exercises. Grasp the short bar that is attached to the lower pulley cable of this station while you are facing the machine. Stand far enough from the machine to allow your arms to support the weight stack with the bar at arm's length using a palms up grip and the bar resting against your upper thighs. Inhale and curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Standing Bar Curl on Low Pulley

Attach a short bar to the two lower pulley cables of a wall machine. Grasp the short bar while facing the machine. Stand far enough from the pulley to allow your arms to support the weight stacks with the bar at arm's length using a palms up grip. Inhale and curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Kneeling Close Grip Curl on Biceps Machine

Kneel down on the seat of a biceps curling machine and grasp the first curves of the curling bar with a palms up grip. If the machine has a straight bar, use a palms up grip about six to eight inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semi-circular motion until your forearms and biceps touch. Return to starting position and exhale.

STANDING BAR CURL ON UNIVERSAL MACHINE

Biceps

Fig. 1



Fig. 2



STANDING BAR CURL ON LOW PULLEY

Biceps

Fig. 1



Fig. 2



KNEELING CLOSE GRIP CURL ON BICEPS MACHINE

Outer biceps

Fig. 1

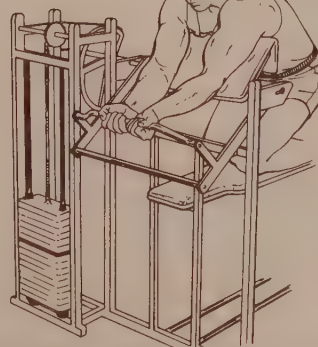
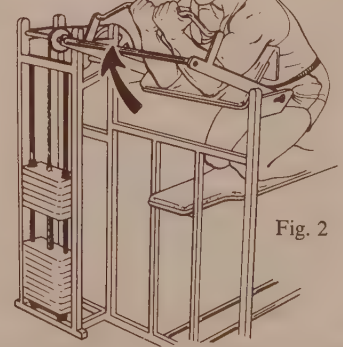


Fig. 2



STANDING MEDIUM GRIP CURL ON BICEPS MACHINE

Main biceps

Fig. 1



Fig. 2



STANDING CLOSE GRIP CURL ON BICEPS MACHINE

Outer biceps

Fig. 1

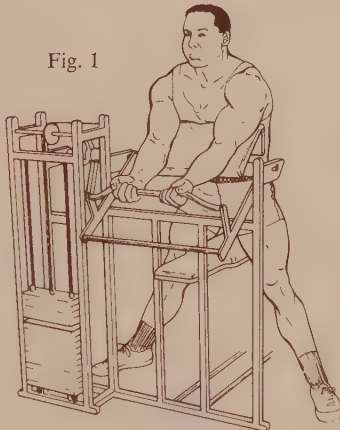


Fig. 2



STANDING REVERSE CLOSE GRIP CURL ON BICEPS MACHINE

Outer biceps and forearms

Fig. 1

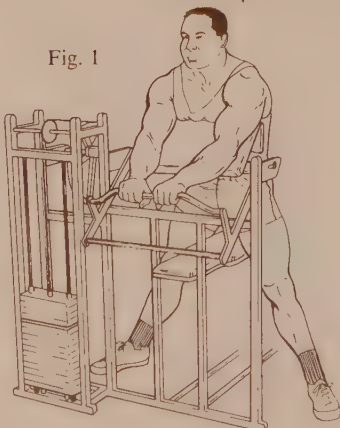


Fig. 2



▲ Kneeling Medium Grip Curl on Biceps Machine

Biceps

Kneel down on the seat of a biceps curling machine and grasp the medium hand spacing curves with a palms up grip. If the machine has a straight bar, use a palms up grip about sixteen inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semi-circular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Standing Medium Grip Curl on Biceps Machine

Straddle the seat of a biceps curling machine and grasp the medium hand spacing curves with a palms up grip. If the machine has a straight bar, use a palms up grip about sixteen inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semi-circular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Standing Close Grip Curl on Biceps Machine

Straddle the seat of a biceps curling machine and grasp the closest hand spacing curves with your palms facing up. If the machine has a straight bar, use a palms up grip about eight inches apart. Keep your knees locked and your upper arms against the pad provided. Keep your upper arms from moving outward as you curl the bar upward in a semi-circular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Standing Reverse Close Grip Curl on Biceps Machine

Straddle the seat of a biceps curling machine and grasp the closest hand spacing curves with your palms facing down. If the machine has a straight bar, use a palms down grip about eight inches apart. Keep your knees locked and your upper arms against the pad provided. Keep your upper arms from moving outward as you curl the bar upward in a semi-circular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Standing Reverse Medium Grip Curl on Biceps Machine

Straddle the seat of a biceps curling machine and grasp the medium hand spacing curves with a palms down grip. If the machine has a straight bar, use a palms down grip about sixteen inches apart. Place your upper arms against the pad provided and keep your upper arms from moving outward as you curl the bar upward in a semi-circular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Lying Floor Feet Forward Low Pulley Bar Curl

Attach a short bar to the two lower pulley cables of a wall machine. Grasp the bar and lie in a supine position with your feet facing the machine but far enough from the pulley to allow your arms to support the weight stacks with the bar at arm's length using a palms up grip and the bar resting against your upper thighs. Inhale and curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Lying Reverse Grip Bar Curl on Low Pulley

Biceps and forearms

Attach a short straight bar to the two lower pulley cables of a wall machine. Grasp the short bar and lie on the floor in a supine position with your feet facing the machine but far enough from the machine to support the weight stacks with the bar at arm's length using a palms down grip and the bar resting against your upper thighs. Inhale and reverse curl the bar upward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the bar up until your biceps and forearms are touching. Return to starting position and exhale.

▲ Lying Low Pulley Two Arm Biceps Curl

Grasp the two lower pulley cable handles of a wall pulley using a palms up grip. Lie on the floor in front of the machine and far enough away so your arms are supporting the weight stacks while they are fully extended at your sides. Inhale and curl the pulley cables upward keeping your upper arms in close to your sides and against your upper body, until your forearms and biceps touch. Lower the pulleys to starting position and exhale. Do not raise your upper

STANDING REVERSE MEDIUM GRIP CURL ON BICEPS MACHINE

Main biceps and forearms

Fig. 1

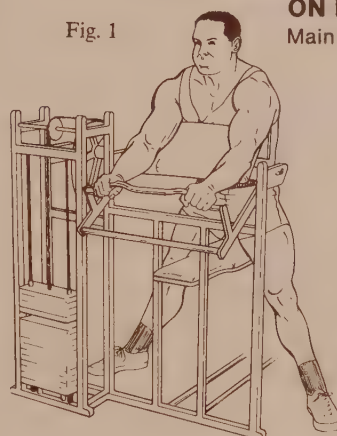


Fig. 2



LYING FLOOR FEET FORWARD LOW PULLEY BAR CURL

Biceps

Fig. 1

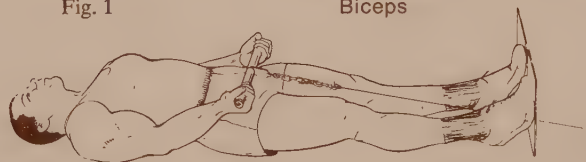


Fig. 2



LYING LOW PULLEY TWO ARM BICEPS CURL

Biceps

Fig. 1

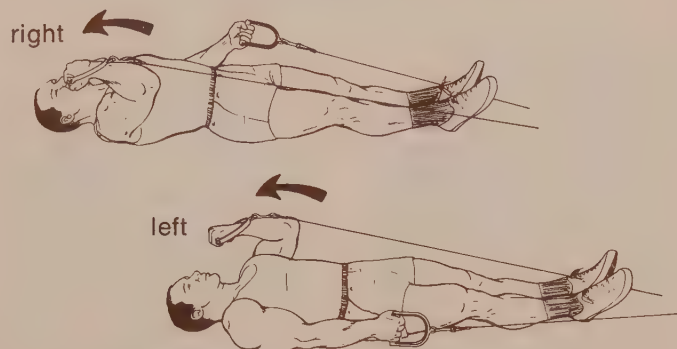


Fig. 2



LYING LOW PULLEY ALTERNATED BICEPS CURL

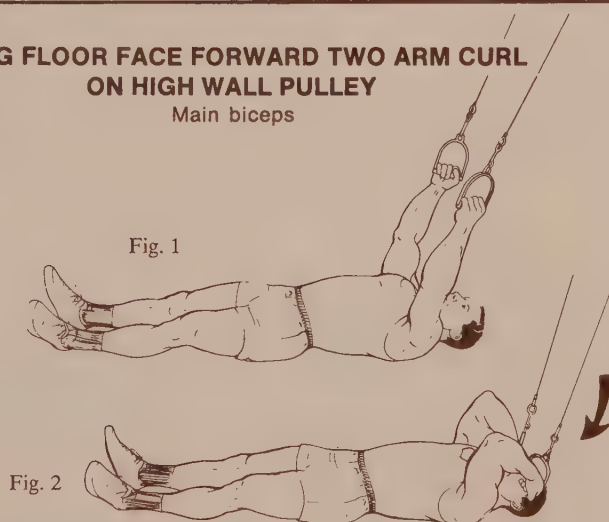
Biceps

**▲ Lying Low Pulley Alternated Biceps Curl**

Grasp the two lower pulley cable handles of a wall pulley using a palms up grip. Lie on the floor in front of the machine and far enough away so your arms are supporting the weight stacks while they are fully extended at your sides. Inhale and curl the pulley cable in your right hand upward keeping your upper arm in close to your side and against your upper body, until your right forearm and biceps touch. As you commence to lower your right hand back to starting position, bring your left hand up in a similar manner so as the right hand is returning to starting position the left hand is at the top position. Inhale as you work your right hand and exhale as you work your left hand.

LYING FLOOR FACE FORWARD TWO ARM CURL ON HIGH WALL PULLEY

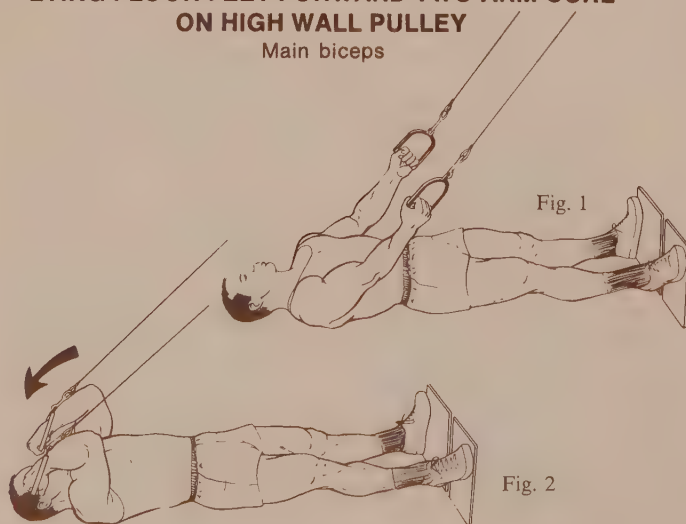
Main biceps

**▲ Lying Floor Face Forward Two Arm Curl on High Wall Pulley**

Grasp the handles of the two upper pulley cables of a wall pulley machine. Lie in a supine position with your head facing the machine but far enough from the pulley to allow your arms to support the weight stacks with the handles at arm's length using a palms forward grip. Inhale and curl the handles downward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the handles down until your biceps and forearms touch. Return to starting position and exhale.

LYING FLOOR FEET FORWARD TWO ARM CURL ON HIGH WALL PULLEY

Main biceps

**▲ Lying Floor Feet Forward Two Arm Curl on High Wall Pulley**

Grasp the handles of the two upper pulley cables of a wall pulley machine. Lie in a supine position with your feet facing the machine but far enough from the pulley to allow your arms to support the weight stacks with the handles at arm's length using a palms forward grip. Inhale and curl the handles downward by bending your arms at your elbows but keeping your upper arms in close to your sides. Curl the handles down until your biceps and forearms touch. Return to starting position and exhale.

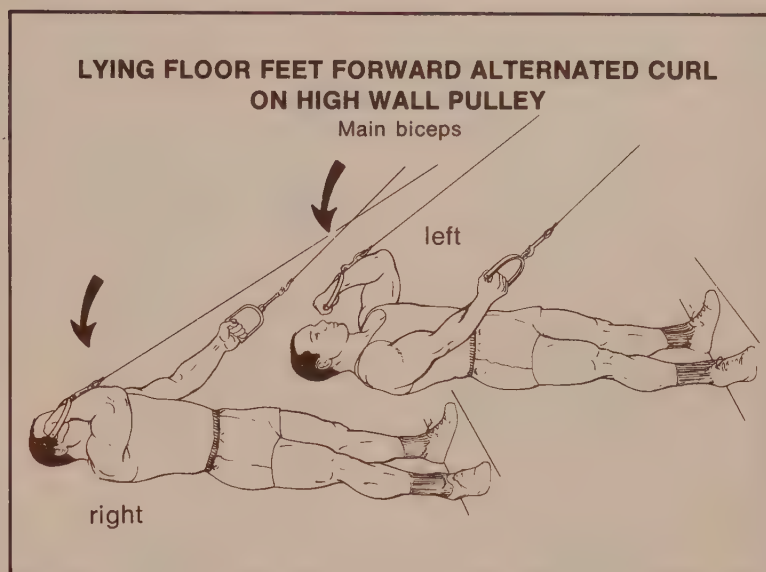
▲ Lying Floor Feet Forward Alternated Curl on High Wall Pulley

Grasp the handles of the two upper pulley

cables of a wall pulley machine. Lie in a supine position with your feet facing the machine but far enough from the pulley to allow your arms to support the weight stacks with the handles at arm's length using a palms forward grip. Inhale and curl the handle in your right hand downward by bending your arm at your elbow but keeping your upper arm in close to your side. Curl the handle down until your right biceps and forearm touch. Return to starting position and exhale. Now curl the handle in your left arm in the same manner. Continue going from right arm to left arm until the prescribed number of repetitions are completed.

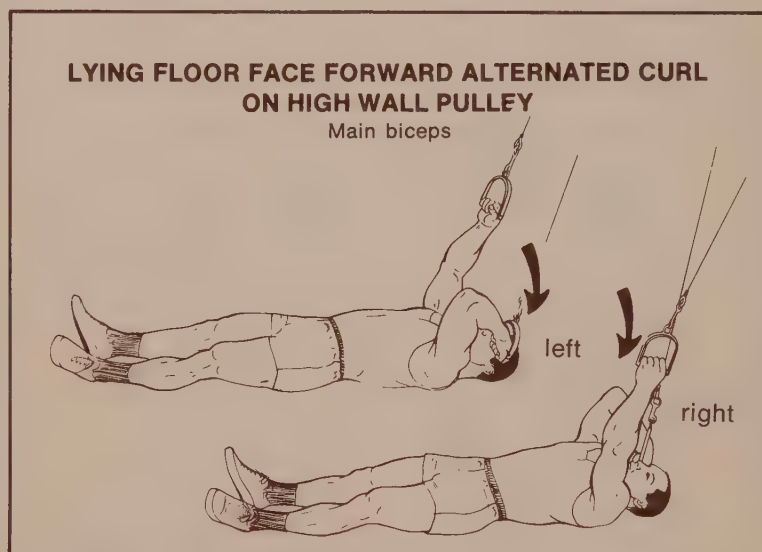
▲ Lying Floor Face Forward Alternated Curl on High Wall Pulley

Grasp the handles of the two upper pulley cables of a wall pulley machine. Lie in a supine position with your head facing the machine but far enough from the pulley to allow your arms to support the weight stacks with the handles at arm's length, using a palms forward grip. Inhale and curl the handle in your right hand downward by bending your arm at your elbow but keeping your upper arm in close to your side. Curl the handle down until your right biceps and forearm touch. Return to starting position and exhale. Now curl the handle in your left arm in the same manner. Continue going from right arm to left arm until the prescribed number of repetitions are completed.



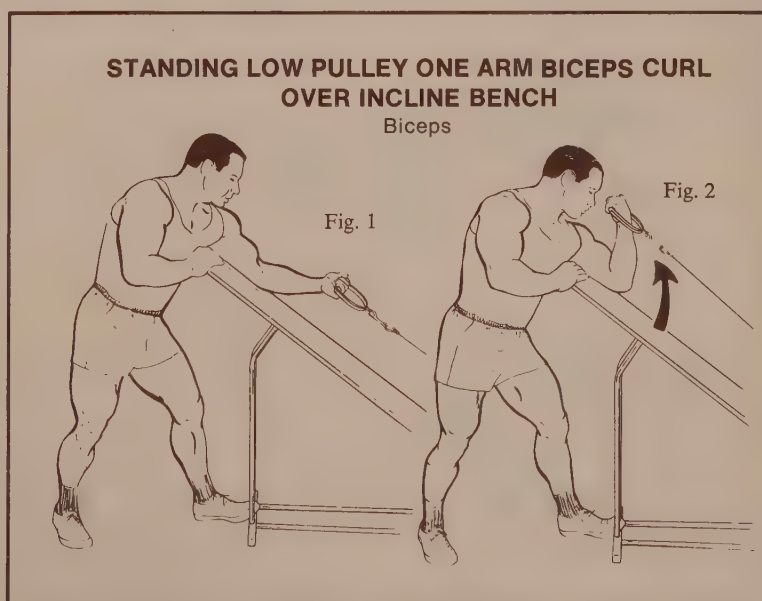
LYING FLOOR FACE FORWARD ALTERNATED CURL ON HIGH WALL PULLEY

Main biceps



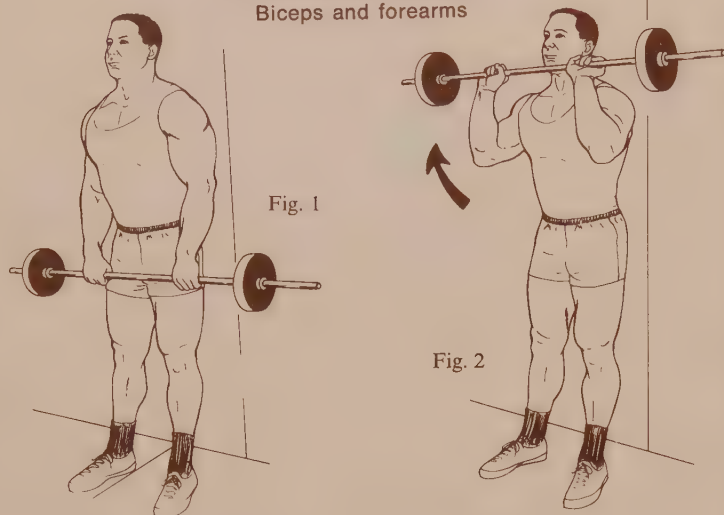
▲ Standing Low Pulley One Arm Biceps Curl Over Incline Bench

Position an incline bench in front of a wall pulley with the low end of the bench closest to the pulley. Grasp the right lower pulley cable handle with your right hand, using a palms up grip, and step behind the incline bench and place your right arm over the incline. Extend your arm down until it is resting on the incline and it is supporting the weight stack with no slack in the cable. Inhale and curl the pulley upward until your forearm and biceps touch. Your upper arm will remain on the bench throughout the exercise. Return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions doing the same number of repetitions with your left hand.



STANDING REVERSE MEDIUM GRIP BARBELL CURL AGAINST WALL

Biceps and forearms



■ Standing Reverse Medium Grip Barbell Curl Against Wall

Hold a barbell with both hands using a palms down grip about eighteen inches apart. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

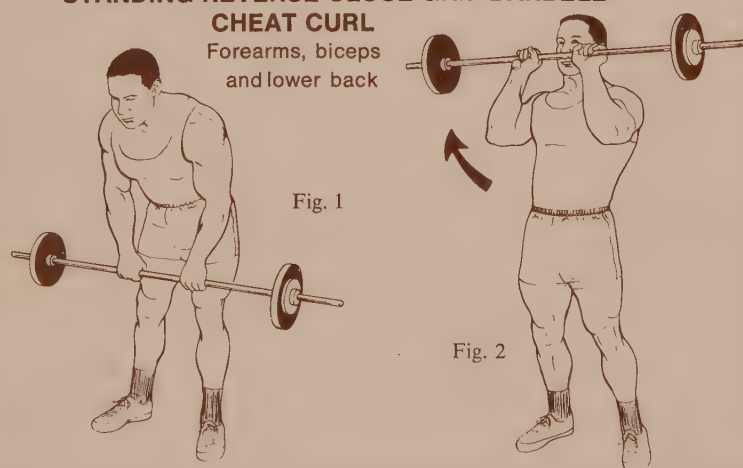
■ Standing Reverse Close Grip Barbell Curl Against Wall

Forearms and biceps

Hold a barbell with both hands using a palms down grip about twelve inches apart. Stand with your back resting against a wall and your legs slightly out in front of you with your knees locked out. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders keeping your back against the wall. As you are lowering the bar back to the starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

STANDING REVERSE CLOSE GRIP BARBELL CHEAT CURL

Forearms, biceps
and lower back

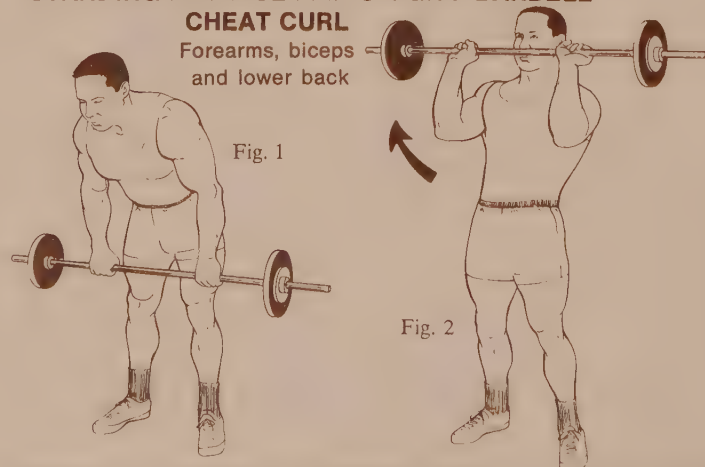


■ Standing Reverse Close Grip Barbell Cheat Curl

Hold a barbell with both hands using a palms down grip about twelve inches apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your forearms and biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weights as much as possible. Exhale as you return to starting position.

STANDING REVERSE MEDIUM GRIP BARBELL CHEAT CURL

Forearms, biceps
and lower back



■ Standing Reverse Medium Grip Barbell Cheat Curl

Hold a barbell with both hands using a palms down grip about eighteen inches

apart. Stand erect with your feet about sixteen inches apart. With the barbell at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your forearms and biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Reverse Close Grip Easy Curl Bar Cheat Curl

Hold an easy curl bar with both hands using a palms down grip on the first curves of the bar. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your forearms and biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the easy bar back to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

■ Standing Reverse Medium Grip Easy Curl Bar Cheat Curl

Forearms, biceps and lower back

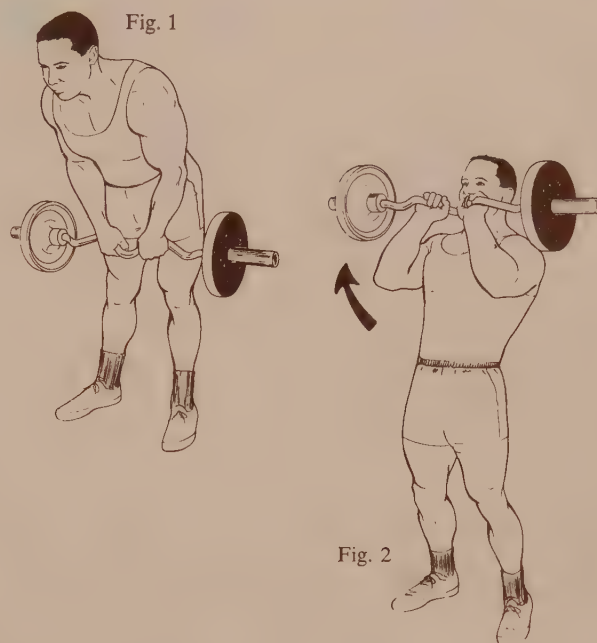
Hold an easy curl bar with both hands using a palms down grip on the medium hand spacing curves. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your forearms and biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the easy bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

▲ Standing Reverse Medium Grip Easy Curl Bar Curl

Hold an easy curl bar with both hands using a palms down grip on the medium hand spacing curves. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your forearms and biceps and rocking back slightly to bring your lower back into play. This will enable you to handle heavier poundages. As you are lowering the easy bar back to starting position, do so in a controlled manner causing the biceps to resist the weight as much as possible. Exhale as you return to starting position.

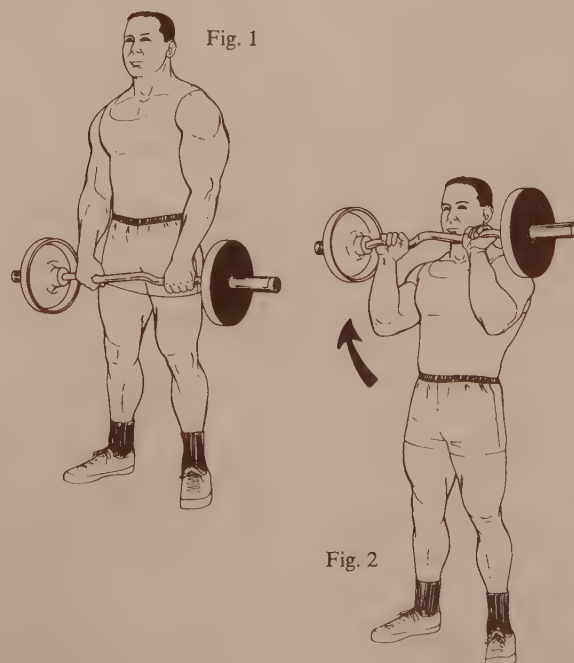
STANDING REVERSE CLOSE GRIP EASY CURL BAR CHEAT CURL

Forearms, biceps and lower back



STANDING REVERSE MEDIUM GRIP EASY CURL BAR CURL

Biceps and forearms



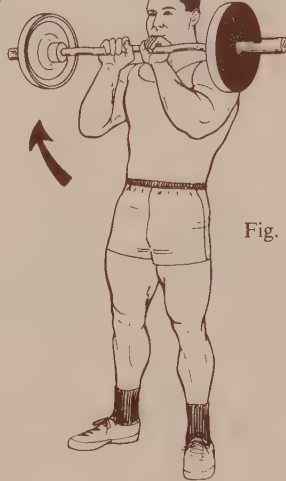
STANDING REVERSE CLOSE GRIP EASY CURL BAR CURL

Outer biceps and forearms

Fig. 1



Fig. 2



thighs, inhale and curl the bar up to the height of your shoulders using your forearms and biceps to curl the weight. As you are lowering the easy bar to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as you return to starting position.

▲ Standing Reverse Close Grip Easy Curl Bar Curl

Hold an easy curl bar with both hands using a palms down grip on the first curves of the bar. Stand erect with your feet about sixteen inches apart. With the easy bar at arm's length against your upper thighs, inhale and curl the bar up to the height of your shoulders using your forearms and biceps to curl the weight. As you are lowering the easy bar to starting position, do so in a controlled manner causing the forearms and biceps to resist the weight as much as possible. Exhale as your return to starting position.

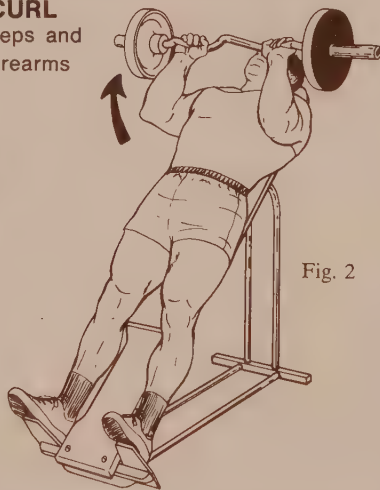
INCLINE REVERSE MEDIUM GRIP EASY CURL BAR CURL

Biceps and forearms

Fig. 1



Fig. 2



▲ Incline Reverse Medium Grip Easy Curl Bar Curl

Grasp an easy curl bar with both hands using a palms down grip on the medium hand spacing curves. Lie back on an incline bench with the easy bar held at arm's length in front of you and resting on your upper thighs. Inhale and curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

▲ Incline Reverse Close Grip Easy Curl Bar Curl

Forearms and biceps

Grasp an easy curl bar with both hands using a palms down grip on the first curves of the bar. Lie back on an incline bench with the easy bar held at arm's length in front of you and resting on your upper thighs. Inhale and curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Keep your upper arms close to your sides. Return the weight to starting position and exhale.

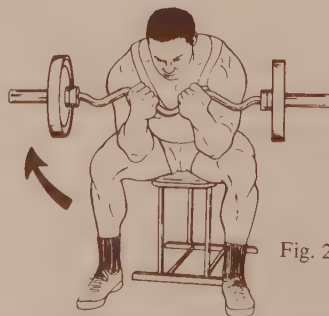
SEATED CLOSE GRIP EASY CURL BAR CONCENTRATED CURL

Outer and lower biceps

Fig. 1



Fig. 2



■ Seated Close Grip Easy Curl Bar Concentrated Curl

Grasp an easy curl bar with both hands using a palms up grip and the closest hand spacing curves possible. Sit at the end of

a flat bench. Bend forward at the waist keeping your back straight, head up and feet planted firmly on the floor about sixteen inches apart. Place your upper arms against the sides of your upper thighs while holding the easy curl bar straight down at arm's length. Keeping your upper arms against your inner thighs, inhale and curl the easy bar straight up in a semi-circular motion until your biceps and forearms touch and your hands are directly under your chin. Return the easy bar to starting position using a similar path and exhale.

■ Squatting Close Grip Easy Curl Bar Concentrated Curl

Grasp an easy curl bar with both hands using a palms up grip and the closest hand spacing curves possible. Squat down until your upper thighs are nearly parallel with the floor keeping your back straight and head up. Place your upper arms against the sides of your upper thighs while holding the easy curl bar straight down at arm's length. Keeping your upper arms against your inner thighs, inhale and curl the easy bar straight up in a semicircular motion until your biceps and forearms touch and your hands are directly under your chin. Return the easy bar to starting position using a similar path and exhale.

▲ Lying High Bench Close Grip Easy Curl Bar Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place an easy curl bar on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp the easy curl bar with both hands using a palms up grip and the closest hand spacing curves possible. With your arms hanging straight down, inhale and curl the easy bar up in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Curl the bar straight up until it is directly under your chin. Return to starting position and exhale.

■ Lying High Bench Medium Grip Easy Curl Bar Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place an easy curl bar on the floor at one end of the bench. Lie face down on the bench with your head over the end and the

SQUATTING CLOSE GRIP EASY CURL BAR CONCENTRATED CURL

Outer and lower biceps

Fig. 1

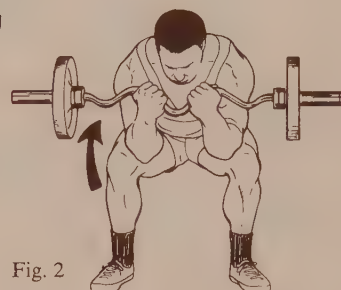


Fig. 2

LYING HIGH BENCH CLOSE GRIP EASY CURL BAR CURL

Lower outer biceps

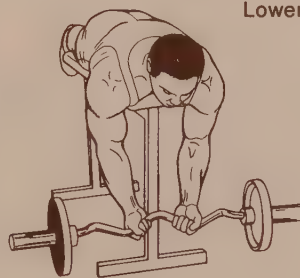


Fig. 1

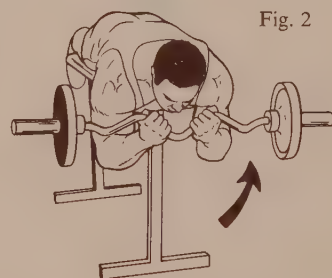


Fig. 2

LYING HIGH BENCH MEDIUM GRIP EASY CURL BAR CURL

Lower biceps



Fig. 1

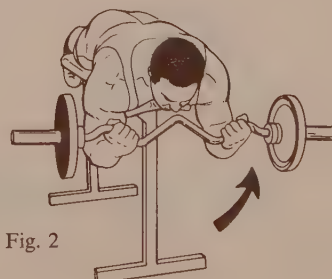


Fig. 2

LYING HIGH BENCH CLOSE GRIP BARBELL CURL

Outer and lower biceps

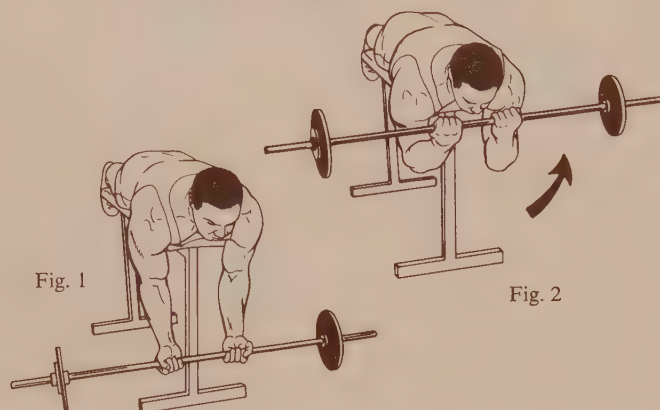


Fig. 1

Fig. 2

LYING HIGH BENCH MEDIUM GRIP BARBELL CURL

Lower biceps

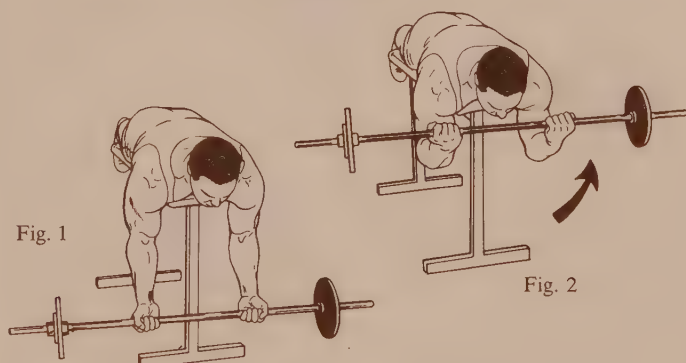


Fig. 1

Fig. 2

LYING HIGH BENCH WIDE GRIP BARBELL CURL

Inner and lower biceps

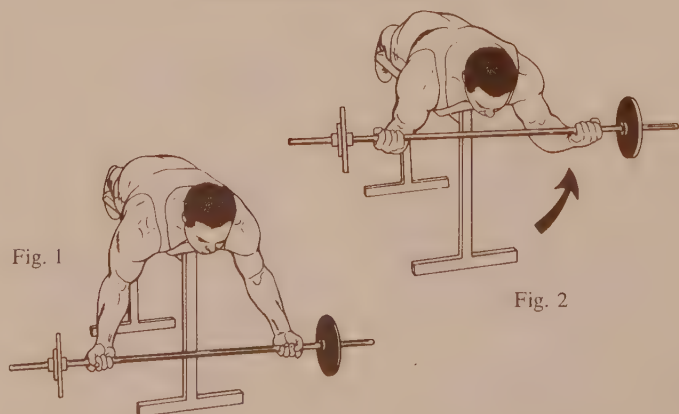


Fig. 1

Fig. 2

end of the bench about in line with your shoulders. Grasp the easy curl bar with both hands using a palms up grip and the medium spaced curves of the bar. With your arms hanging straight down, inhale and curl the easy bar up in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Curl the bar straight up until it is directly under your chin. Return to starting position and exhale.

▲ Lying High Bench Close Grip Barbell Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place a barbell on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp the bar with both hands using a palms up grip about eight inches wide. With your arms hanging straight down, inhale and curl the bar up in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Curl the bar straight up until it is directly under your chin. Return to starting position and exhale.

▲ Lying High Bench Medium Grip Barbell Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place a barbell on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp the bar with both hands using a palms up grip about fourteen inches wide. With your arms hanging straight down, inhale and curl the bar up in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Curl the bar straight up until it is directly under your chin. Return to starting position and exhale.

■ Lying High Bench Wide Grip Barbell Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place a barbell on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp the bar with both hands using a palms up grip about thirty inches wide. With your arms hanging straight down, inhale and curl the bar up in a semi-

circular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Curl the bar straight up until it is directly under your chin. Return to starting position and exhale.

■ Lying High Bench Reverse Close Grip Easy Curl Bar Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place an easy curl bar on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp the easy curl bar with both hands using a palms down grip and the closest hand spacing curves possible. With your arms hanging straight down, inhale and reverse curl the easy bar up in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Reverse curl the bar straight up until it is directly under your chin. Return to starting position and exhale.

■ Lying High Bench Reverse Medium Grip Easy Curl Bar Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place an easy curl bar on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp the easy curl bar with both hands using a palms down grip and the medium spaced curves of the bar. With your arms hanging straight down, inhale and reverse curl the easy bar up in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout the exercise. Reverse curl the bar straight up until it is directly under your chin. Return to starting position and exhale.

■ Lying High Bench Two Arm Dumbbell Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place two dumbbells on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp a dumbbell in each hand using a palms up grip. With your arms hanging straight down, inhale and curl the dumbbells up in a semicircular motion by bending your arms at the elbows but keeping your upper arms vertical throughout

LYING HIGH BENCH REVERSE CLOSE GRIP EASY CURL BAR CURL

Outer lower biceps and forearms

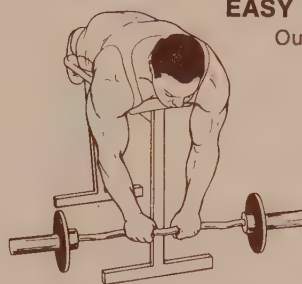


Fig. 1

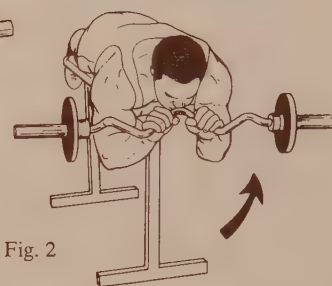


Fig. 2

LYING HIGH BENCH REVERSE MEDIUM GRIP EASY CURL BAR CURL

Lower biceps and forearms

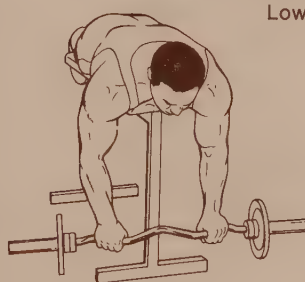


Fig. 1

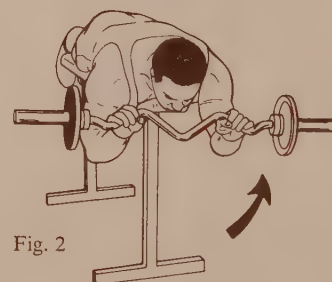


Fig. 2

LYING HIGH BENCH TWO ARM DUMBBELL CURL

Lower biceps

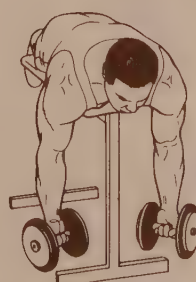


Fig. 1

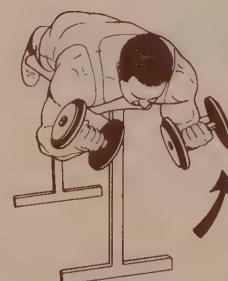


Fig. 2

LYING HIGH BENCH ONE ARM DUMBBELL CURL

Lower biceps



Fig. 1

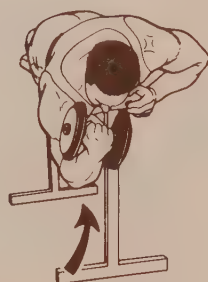
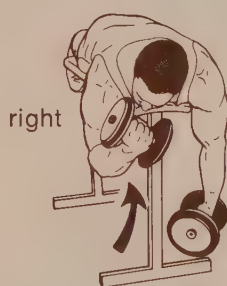


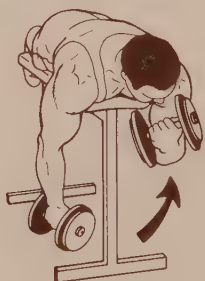
Fig. 2

LYING HIGH BENCH ALTERNATED DUMBBELL CURL

Lower biceps



right



left

SEATED SCOTT BENCH TWO ARM DUMBBELL CURL

Lower biceps



Fig. 1

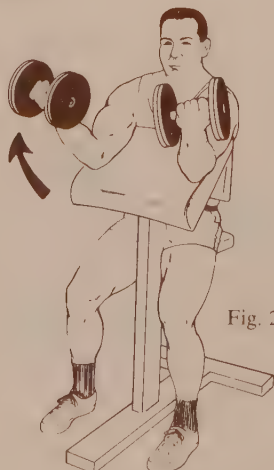


Fig. 2

the exercise. Curl the dumbbells straight up until they are directly under your chin. Return to starting position and exhale.

▲ Lying High Bench One Arm Dumbbell Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place a dumbbell on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp the dumbbell with your right hand using a palms up grip. With your arm hanging straight down, inhale and curl the dumbbell up in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. Curl the dumbbell straight up until it is directly under your chin. Return to starting position using the same circular motion and exhale. Do the prescribed number of repetitions with your right arm and then change positions to your left arm repeating the same number of repetitions.

▲ Lying High Bench Alternated Dumbbell Curl

You must use a bench that is about thirty inches high to properly perform this exercise. Place two dumbbells on the floor at one end of the bench. Lie face down on the bench with your head over the end and the end of the bench about in line with your shoulders. Grasp a dumbbell in each hand using a palms up grip. With your arms hanging straight down, inhale and curl the dumbbell in your right hand up in a semicircular motion by bending your arm at the elbow but keeping your upper arm vertical throughout the exercise. Curl the dumbbell straight up until it is directly under your chin. Return to starting position using the same circular motion and exhale. Now curl the dumbbell in your left hand in the same manner. Continue curling the dumbbells back and forth until the prescribed number of repetitions are completed. A curl to the right and to the left is considered one repetition.

▲ Seated Scott Bench Two Arm Dumbbell Curl

Grasp a dumbbell in each hand and sit on a Scott bench with your arms resting on the slanted pad using a palms up grip. Try to keep your upper arms drawn inward as you inhale and curl the dumbbells up using a

semicircular motion until your biceps and forearms meet. Return to starting position using the same circular motion, with your upper arms in, and exhale.

▲ Seated Scott Bench One Arm Dumbbell Curl

Grasp a dumbbell in your right hand and sit on a Scott bench with your arm resting on the slanted pad using a palm up grip. Try to keep your upper arm drawn inward as you inhale and curl the dumbbell up using a semicircular motion until your biceps and forearm meet. Return to starting position using the same circular motion, with your upper arm in, and exhale. Do the prescribed number of repetitions with your right arm and then change positions to your left arm doing the same number of repetitions.

SEATED SCOTT BENCH ONE ARM DUMBBELL CURL

Lower biceps



Fig. 1



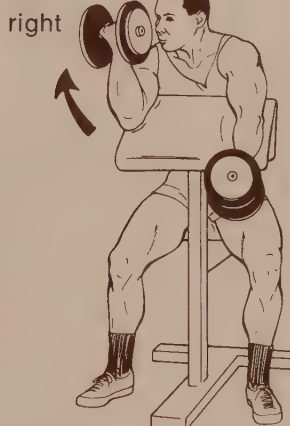
Fig. 2

▲ Seated Scott Bench Alternated Dumbbell Curl

Grasp a dumbbell in each hand and sit on a Scott bench with your arms resting on the slanted pad using a palms up grip. Try to keep your upper arms drawn inward as you inhale and curl the dumbbell in your right hand up using a semicircular motion until your biceps and forearm meet. Return to starting position using the same circular motion, with your upper arm in, and exhale. Now curl the dumbbell in your left hand in the same manner. Continue curling the dumbbells back and forth until the prescribed number of repetitions are completed. A curl to the right and to the left is considered one repetition.

SEATED SCOTT BENCH ALTERNATED DUMBBELL CURL

Lower biceps



right



left

▲ Scott Bench Reverse Medium Grip Easy Curl Bar Curl

Hold an easy curl bar with both hands using a palms down grip of the medium hand spacing curves. Sit on a Scott type curling bench and place your upper arms against the pad provided. Try to keep your upper arms from moving outward as you curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

SCOTT BENCH REVERSE MEDIUM GRIP EASY CURL BAR CURL

Biceps and forearms

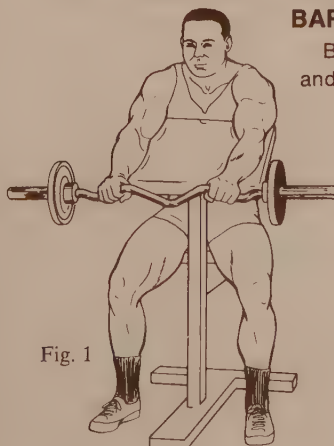


Fig. 1

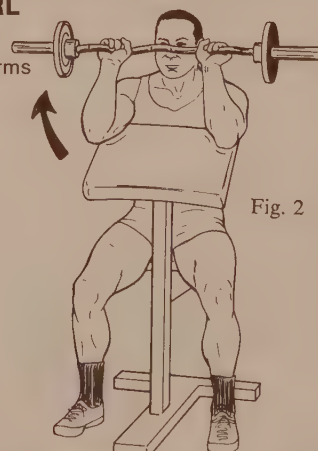


Fig. 2

▲ Scott Bench Reverse Close Grip Easy Curl Bar Curl

Forearms and biceps

Hold an easy curl bar with both hands using a palms down grip on the first curves of the bar. Sit on a Scott type curling bench and place your upper arms against the pad pro-

STANDING DUMBBELL CURL

Biceps

Fig. 1

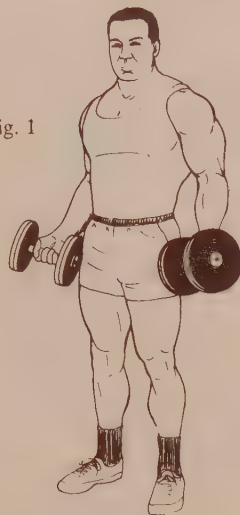
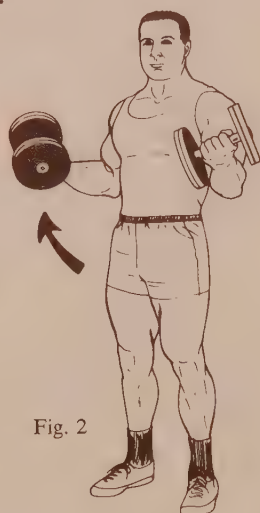


Fig. 2



vided. Try to keep your upper arms from moving outward as you curl the easy bar upward in a semicircular motion until your forearms and biceps touch. Return to starting position and exhale.

▲ Standing Dumbbell Curl

Hold a dumbbell in each hand and stand erect with your feet about sixteen inches apart. Keep your back straight, head up, and hips and legs locked out. With the dumbbells hanging at arm's length at your sides, with your palms in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Keep your upper arms in close to your sides and concentrate on your biceps raising and lowering the weights.

LYING SUPINE DUMBBELL CURL

Biceps

Fig. 1

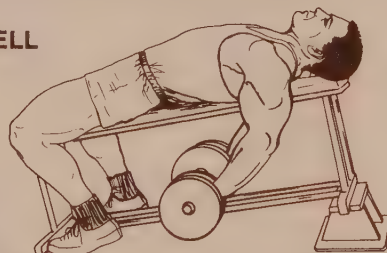
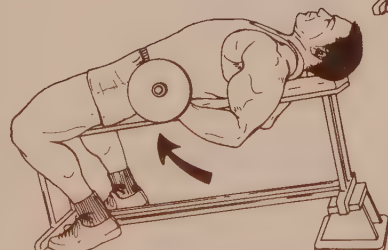


Fig. 2

**▲ Lying Supine Dumbbell Curl**

Hold a dumbbell in each hand and lie in a supine position on a flat bench with your head up and legs to the sides of the bench for better balance. With the dumbbells hanging at arm's length straight down, with your palms in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl turn your palms up and keep them in this position throughout the exercise until you are lowering the weights and again near the end of the curl and then turn the palms in. Keep your upper arms in close to your sides and concentrate on your biceps raising and lowering the weights.

KNEELING DUMBBELL CURL

Biceps

Fig. 1

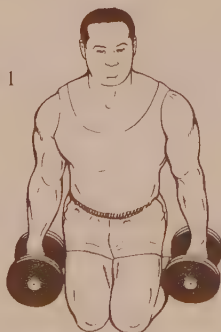
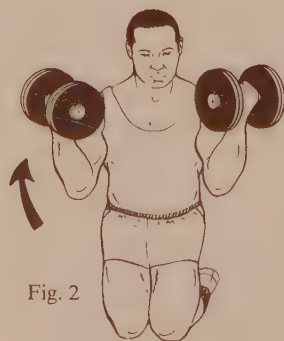


Fig. 2

**▲ Kneeling Dumbbell Curl**

Hold a dumbbell in each hand and kneel on the floor sitting down until your leg biceps and calves touch. Keep your back straight and head up. With the dumbbells hanging at arm's length at your sides, with your palms in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and ex-

haling. Keep your upper arms in close to your sides and concentrate on your biceps raising and lowering the weights.

▲ Seated Dumbbell Curl

Hold a dumbbell in each hand and sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. With the dumbbells hanging at arm's length at your sides, with your palms in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Keep your upper arms in close to your sides and concentrate on your biceps raising and lowering the weights.

▲ Incline Dumbbell Curl

Hold a dumbbell in each hand and lie back on an incline bench with your head up and feet on the foot pads. With the dumbbells hanging at arm's length at your sides, with your palms in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Keep your upper arms in close to your sides and concentrate on your biceps raising and lowering the weights.

▲ Seated Incline Dumbbell Curl

Hold a dumbbell in each hand and sit on an incline bench with your back straight, head up and feet on the foot pads. With the dumbbells hanging at arm's length at your sides, with your palms in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Keep your upper arms in close to your sides and concentrate on your biceps raising and lowering the weights.

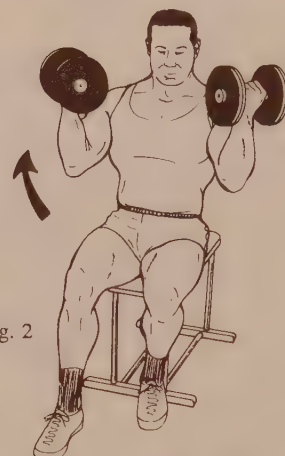
SEATED DUMBBELL CURL

Biceps

Fig. 1



Fig. 2



INCLINE DUMBBELL CURL

Biceps

Fig. 1

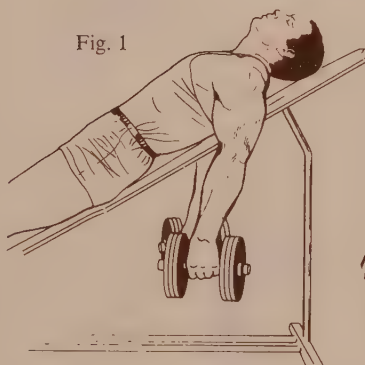
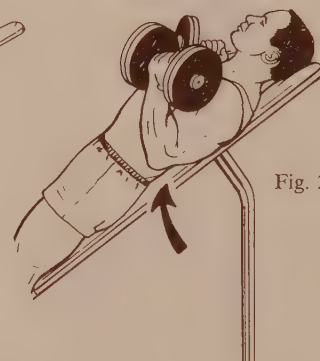


Fig. 2



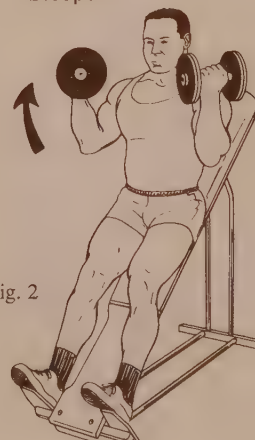
SEATED INCLINE DUMBBELL CURL

Biceps

Fig. 1



Fig. 2



STANDING ALTERNATED DUMBBELL CURL

Biceps

right



left

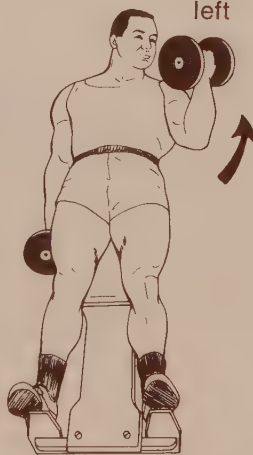
**INCLINE ALTERNATED DUMBBELL CURL**

Biceps

right



left

**SEATED ALTERNATED DUMBBELL CURL**

Biceps

right



left

**▲ Standing Alternated Dumbbell Curl**

Grasp a dumbbell in each hand and stand erect with your back straight, head up and feet about sixteen inches apart. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbell in your right hand up past your right thigh and then turn your palm up and keep it in this up position throughout the exercise until you are lowering the weight and again near your upper thigh before turning the palm in again and exhaling. Do a repetition with your right arm and then one with your left arm. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Incline Alternated Dumbbell Curl

Grasp a dumbbell in each hand and lie back on an incline bench with your head up and feet on the foot pads. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbell in your right hand up past your right thigh and then turn your palm up and keep it in this up position throughout the exercise until you are lowering the weight and again near your upper thigh before turning the palm in again and exhaling. Do a repetition with your right arm and then one with your left arm. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Seated Alternated Dumbbell Curl

Hold a dumbbell in each hand and sit at the end of a flat bench with your back straight, head up and feet planted firmly on the floor. With the dumbbells hanging at arm's length from your shoulders, with your palms in, inhale and curl the dumbbell in your right hand up to the height of your shoulder. As you commence the curl and the dumbbell is past your thigh, then turn your palm up and keep it in this up position throughout the exercise until you are lowering the weight and again near your upper thigh before turning your palm in again and exhaling. Keep your upper arm in close to your side and concentrate on your biceps raising and lowering the weight. As you commence to lower your right hand back to starting position, bring your left hand up in a similar manner so as the right hand is returning to starting position the left hand is at the top position. Inhale as you work your right arm and exhale as you work your left arm.

▲ Lying Supine Alternated Dumbbell Curl

Hold a dumbbell in each hand and lie on a

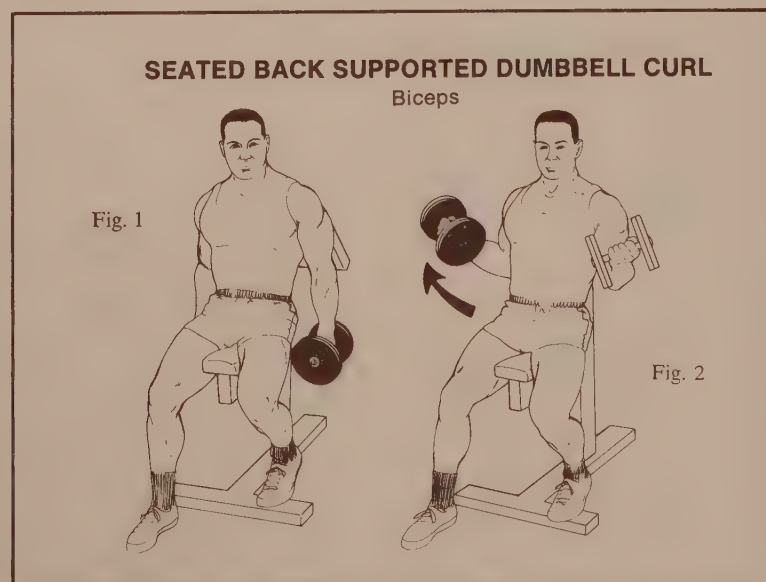
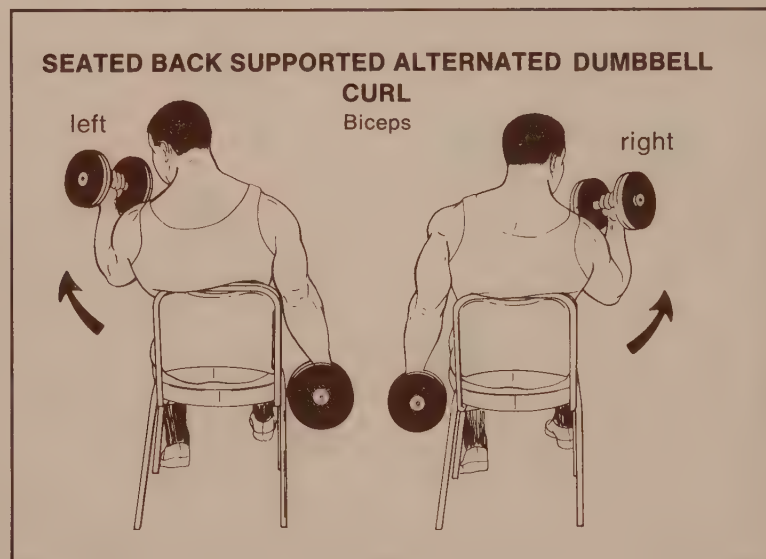
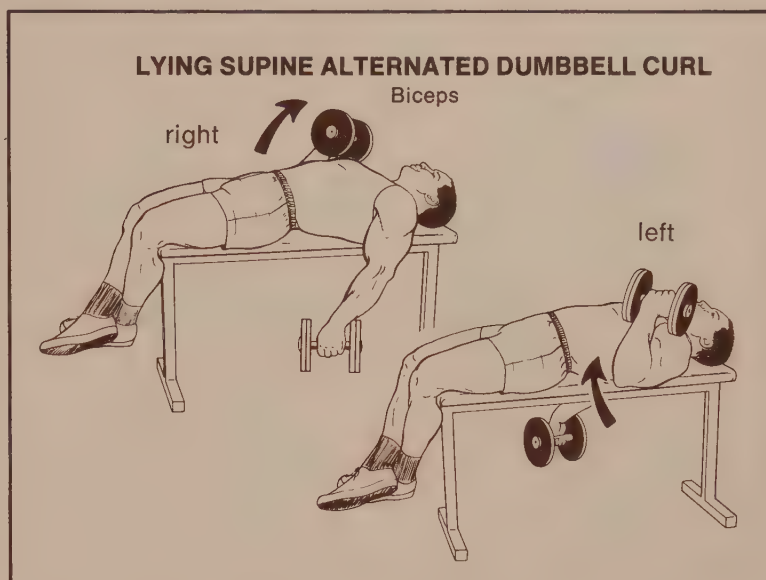
flat bench in a supine position with your head up and legs to the sides of the bench for better balance. With the dumbbells hanging at arm's length from your shoulders, palms facing in, inhale and curl the dumbbell in your right hand up to the height of your shoulder. As you commence the curl turn your palm up and keep it in this position throughout the exercise until you are lowering the weight and again near the end of the exercise before turning your palm in again and exhaling. Keep your upper arm in close to your side and concentrate on your biceps raising and lowering the weight. As you commence to lower your right hand back to starting position, bring your left hand up in a similar manner as the right hand is returning to starting position the left hand is at the top position. Inhale as you work your right arm and exhale as you work your left arm.

▲ Seated Back Supported Alternated Dumbbell Curl

Grasp a dumbbell in each hand and sit on a stool or chair that can give support to your upper back. Keep your back straight, head up and feet planted firmly on the floor. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbell in your right hand up past your right thigh and then turn your palm up and keep it in this up position throughout the exercise until you are lowering the weight and again near your upper thigh before turning your palm in again and exhale. Do a repetition with your right arm and then one with your left arm. Continue going from right to left until the prescribed number of repetitions are completed.

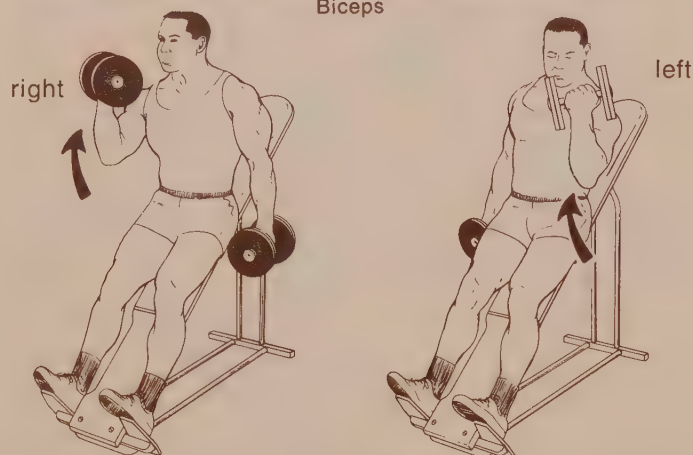
▲ Seated Back Supported Dumbbell Curl

Hold a dumbbell in each hand and sit on a stool or chair that can give support to your upper back. Keep your back straight, head up and feet planted firmly on the floor. With the dumbbells hanging at arm's length at your sides, with your palms in, inhale and curl the dumbbells up to the height of your shoulders. As you commence the curl and the dumbbells are past your thighs, then turn your palms up and keep them in this position throughout the exercise until you are lowering the weights and again near your upper thighs before turning your palms in again and exhaling. Keep your upper arms in close to your sides and concentrate on your biceps raising and lowering the weights.

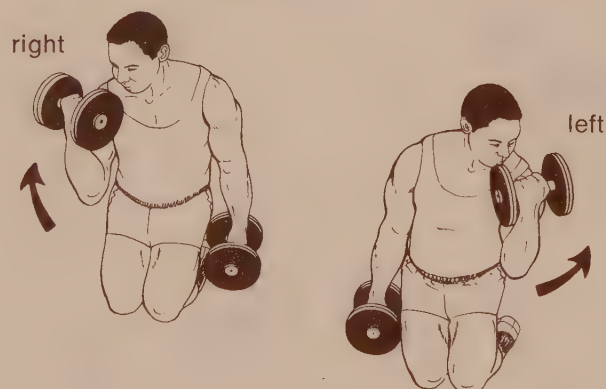


SEATED INCLINE ALTERNATED DUMBBELL CURL

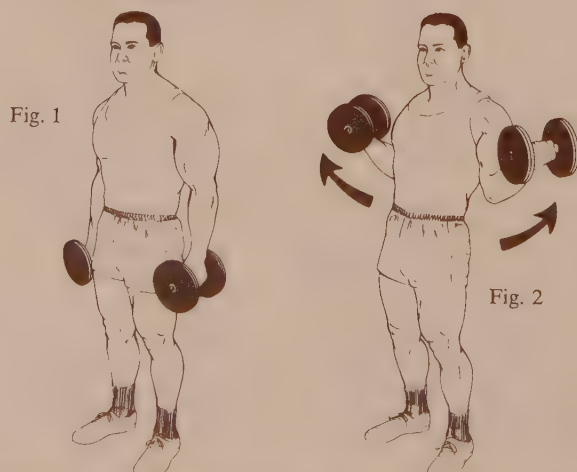
Biceps

**KNEELING ALTERNATED DUMBBELL CURL**

Biceps

**STANDING INNER BICEPS CURL**

Inner biceps

**■ Seated Incline Alternated Dumbbell Curl**

Hold a dumbbell in each hand and sit on an incline bench with your back straight, head up and feet on the foot pads. With the dumbbells hanging at arm's length from your shoulders, with your palms in, inhale and curl the dumbbell in your right hand up to the height of your shoulder. As you commence the curl and the dumbbell is past your thigh, then turn your palm up and keep it in this up position throughout the exercise until you are lowering the weight and again near your upper thigh before turning your palm in again and exhaling. Keep your upper arm in close to your side and concentrate on your biceps raising and lowering the weight. As you commence to lower your right hand back to starting position, bring your left hand up in a similar manner so as the right hand is returning to starting position the left hand is at the top position. Inhale as you work your right arm and exhale as you work your left arm.

■ Kneeling Alternated Dumbbell Curl

Grasp a dumbbell in each hand and kneel on the floor sitting down until your leg biceps and calves are touching. Keep your back straight and head up. With the dumbbells hanging at arm's length from your sides, palms facing in, inhale and curl the dumbbell in your right hand up past your right thigh and then turn your palm up and keep it in this up position throughout the exercise until you are lowering the weight and again near your upper thigh before turning the palm in again and exhaling. Do a repetition with your right arm and then one with your left arm. Continue going from right to left until the prescribed number of repetitions are completed.

■ Standing Inner Biceps Curl

Hold a dumbbell in each hand and stand erect with your feet about sixteen inches apart. Keep your back straight and your hips and legs locked out. With the dumbbells at arm's length hanging at your sides and your palms facing in, inhale and curl the dumbbells up as you turn your palms up. Curl the weight outward and up keeping your forearms in line with your outer deltoids. Continue the curl until the dumbbells are at shoulder height and to the sides of your deltoids. Lower the weights back to starting position using the same path of resistance and exhale.

■ Incline Inner Biceps Curl

Hold a dumbbell in each hand and lie back on an incline bench with your head down and feet on the foot pads. With the dumbbells at arm's length hanging at your sides and your palms facing in, inhale and curl the dumbbells up as you turn your palms up. Curl the weights outward and up keeping your forearms in line with your outer deltoids. Continue the curl until the dumbbells are at shoulder height and to the sides of your deltoids. Lower the weights back to starting position using the same path of resistance and exhale.

■ Seated Incline Inner Biceps Curl

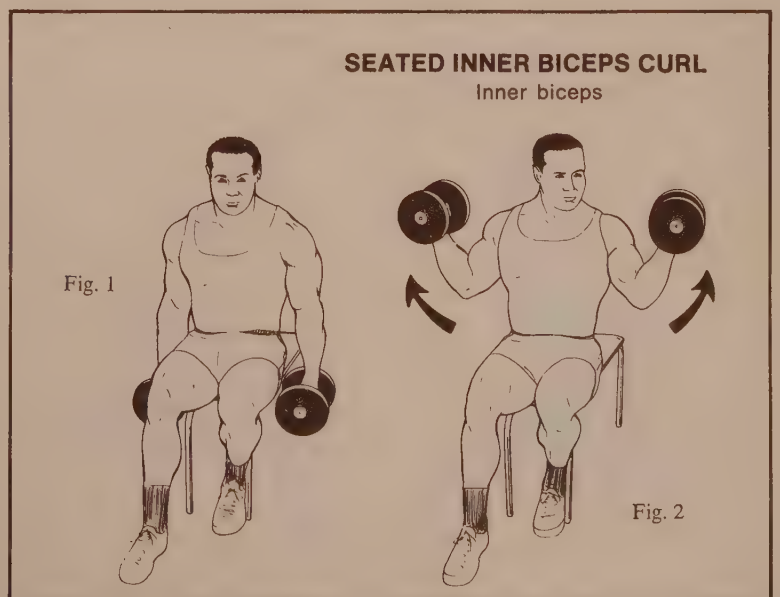
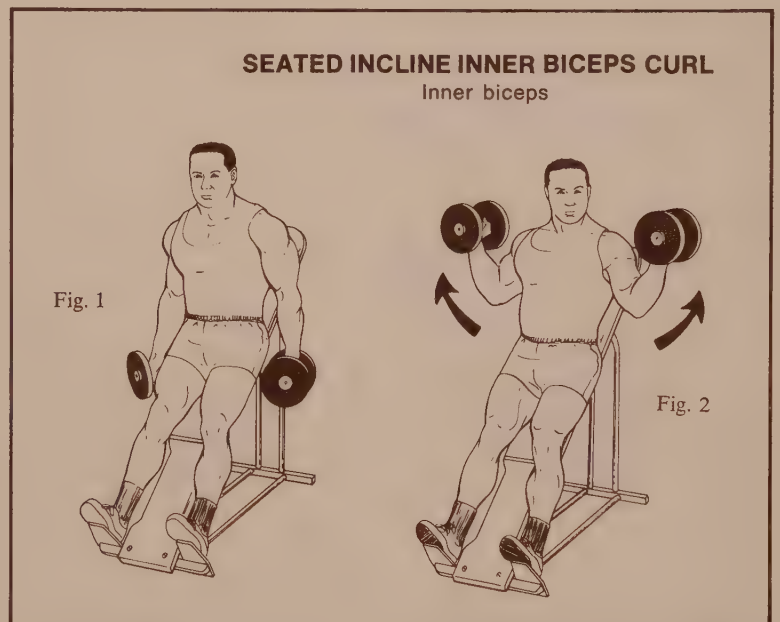
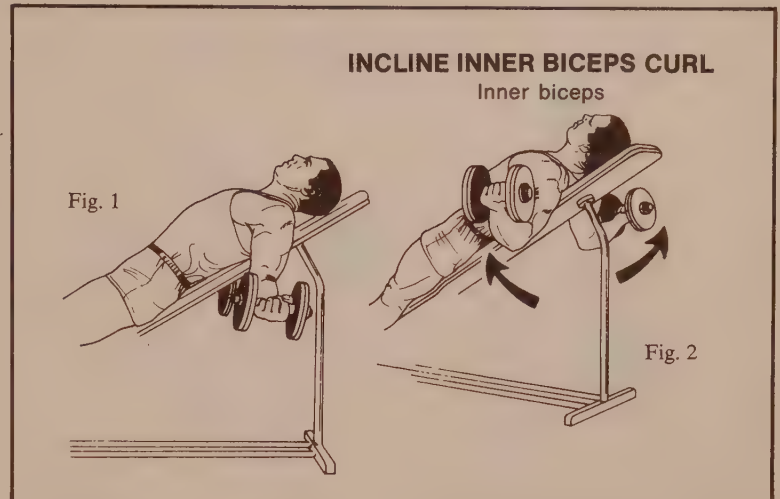
Hold a dumbbell in each hand and sit on an incline bench with your back straight, head up and feet on the foot pads. With the dumbbells at arm's length hanging at your sides and your palms facing in, inhale and curl the dumbbells up as you turn your palms up. Curl the weights outward and up keeping your forearms in line with your outer deltoids. Continue the curl until the dumbbells are at shoulder height and to the sides of your deltoids. Lower the weights back to starting position using the same path of resistance and exhale.

■ Seated Inner Biceps Curl

Hold a dumbbell in each hand and sit at the end of a flat bench with back straight, head up and feet planted firmly on the floor. With the dumbbells at arm's length hanging at your sides and your palms facing in, inhale and curl the dumbbells up as you turn your palms up. Curl the weights outward and up keeping your forearms in line with your outer deltoids. Continue the curl until the dumbbells are at shoulder height and to the sides of your deltoids. Lower the weights back to starting position using the same path of resistance and exhale.

■ Seated Back Supported Inner Biceps Curl

Hold a dumbbell in each hand and sit on a chair with your back against the support, head up and feet planted firmly on the floor. With the dumbbells at arm's length hanging at your sides and your palms facing in, inhale and curl the dumbbells up as you turn your palms up. Curl the weights outward and up keeping your forearms in line with your outer deltoids. Continue the curl until the dumbbells are at shoulder



SEATED BACK SUPPORTED INNER BICEPS CURL

Inner biceps

Fig. 1

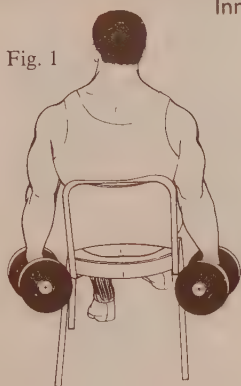
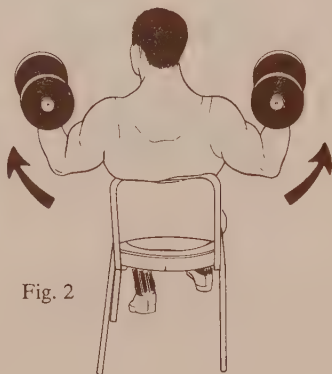


Fig. 2

**LYING SUPINE INNER BICEPS CURL**

Inner biceps

Fig. 1

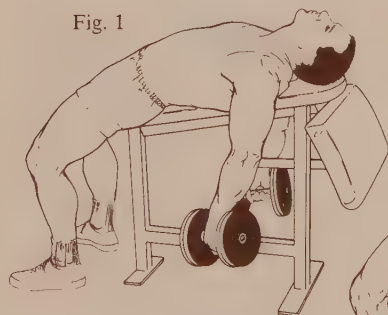
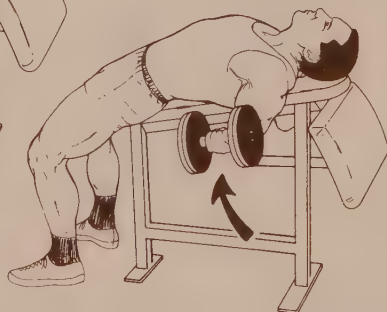


Fig. 2

**KNEELING CONCENTRATED DUMBBELL CURL**

Biceps

Fig. 1



Fig. 2



height and to the sides of your deltoids. Lower the weights back to starting position using the same path of resistance and exhale.

▲ Lying Supine Inner Biceps Curl

Hold a dumbbell in each hand and lie supine on a bench. Keep your feet out to the sides of the bench and your head up. With the dumbbells at arm's length hanging at your sides and your palms facing in, inhale and curl the dumbbells up as you turn your palms up. Curl the weights outward and up keeping your forearms in line with your outer deltoids. Continue the curl until the dumbbells are a shoulder height and to the sides of your deltoids. Lower the weights back to starting position using the same path of resistance and exhale.

▲ Kneeling Concentrated Dumbbell Curl

Grasp a dumbbell in your right hand and kneel down on your left knee and lower left leg. Your right leg should be bent to about a 45° angle. Position the dumbbell in front of you hanging at arm's length between your legs with a palms up grip. Place your upper right arm against your inner thigh for support. Your left hand should be placed against your left upper thigh to help support your upper body. Inhale and curl the dumbbell upward in a semicircular motion by bending your arm at the elbow and keeping your upper arm vertical with the floor. Continue the curl until your bicep and forearm are touching. At the top position the dumbbell should be shoulder high. Return to starting position using a similar motion and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm. Your upper arm should remain against your inner thigh during the entire exercise.

▲ Seated Concentrated Dumbbell Curl

Grasp a dumbbell in your right hand and sit on a bench with your feet about twenty-four inches apart. Position the dumbbell in front of you hanging at arm's length between your legs with a palms up grip. Bend slightly at the waist and place your left hand on your left knee to help support your upper body. Rest your upper right arm against your inner right thigh about four inches

above your knee. Inhale and curl the dumbbell upward in a semicircular motion by bending your arm at the elbow and keeping your upper arm vertical with the floor. Continue the curl until your biceps and forearm are touching. At the top position the dumbbell should be shoulder height. Return to starting position using a similar motion and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

▲ Seated Concentrated Dumbbell Curl

Grasp a dumbbell in your right hand and kneel down on your left knee and lower left leg. Your right-leg should be bent to about a 45° angle. Position the dumbbell in front of you hanging at arm's length between your legs with a palms up grip. Your arm should not be resting against any part of your leg. Inhale and curl the dumbbell upward in a semi-circular motion by bending your arm at the elbow and keeping your upper arm vertical with the floor. Continue the curl until your biceps and forearm are touching. At the top position the dumbbell should be shoulder height. Return to starting position using a similar motion and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

▲ Seated Isolated Dumbbell Curl

Grasp a dumbbell in your right hand and sit on a stool or a flat bench. Put your left lower leg to the rear slightly to get it out of the way and place your left hand on your left lower thigh to help support your upper body. Position the dumbbell in front of you hanging at arm's length between your legs with a palms up grip. Your arm should not be resting against any part of your leg. Inhale and curl the dumbbell upward in a semicircular motion by bending your arm at the elbow and keeping your upper arm vertical with the floor. Continue the curl until your biceps and forearm are touching. At the top position the dumbbell should be shoulder height. Return to starting position using a similar motion and exhale. Do the prescribed number of repetitions with your right arm and then change positions doing the same number of repetitions with your left arm.

SEATED CONCENTRATED DUMBBELL CURL

Biceps

Fig. 1



Fig. 2



KNEELING ISOLATED DUMBBELL CURL

Biceps

Fig. 1



Fig. 2



SEATED ISOLATED DUMBBELL CURL

Biceps

Fig. 1



Fig. 2



Introduction to Thigh Section

The hip and thigh are made up of some of the most powerful and largest muscles in the body. The femur, the long bone of the thigh contributes to the formation of a ball and socket joint with the pelvis which allows for movement of the lower extremity. There are twenty muscle groups which surround the hip.

The thigh and hip muscles are known for their supporting activity in aiding trunk flexion. Two main contributors to this action are the iliopsoas and the biceps femoris. The gluteus maximus, referred to by many as the buttock, and the gluteus medius, also part of the buttock, also aid in the aforementioned activities.

The biceps femoris, semimembraneous and semitendinosus, more commonly known as the hamstrings, are noted for their great flexion action of the knee and extensor movements of the hip in running and jumping, are also powerful muscles.

Hip movements are noted in almost every athletic activity. Because the hip has so many dynamic functions, it is prone toward multiple injuries. One of the most common injuries is severe strain of the hamstring. Strain is also common at the crest of the hip bone. Contusions, also known as hip pointers, can occur as the result of trauma usually seen during football or other contact sports.

Injuries to the groin result from over-extension in running, jumping, or twisting with external rotation of the thigh causing injury to the adductor muscles found in the inside of the thigh.

The quadriceps muscles, which make up the front of the thigh, are involved in nearly any athletic activity.

Weakness of the quadriceps decreases the ability to climb, walk up an incline, get up from a sitting position, kick or maintain weight bearing. If the quadriceps become weak enough the knee may hyperextend, leading to great injury.

The knee is the largest and most vulnerable joint in the body. Injury may result in instability, decreasing the ability of the joint to maintain function. The most common injuries include sprains, strains, contusions, and hyperextension sprains. These injuries are common in sport activities which cause an abnormal forced motion and can happen in almost any direction or combination of directions. It is reported that 75% of all knee injuries result from football, but twisting or direct blow to the inside or outside of the knee can also occur in baseball, basketball, wrestling, skiing, skating, karate, etc.

Another common injury to the knee is dislocation of the knee cap. A blow to the knee cap or sudden forced rotation of the thigh with the foot planted or forced contraction of the quadriceps can cause injury to the quadriceps tendon area below the knee cap. A common injury noted in sprinting, running up or downhill, and jumping.

Even though many thigh and knee injuries are unpredictable because of trauma due to contact sports, weight training can help the athlete be better prepared and better conditioned to handle such stresses. Pre-training exercises and a warm up exercise program can be greatly beneficial for the prevention of thigh and knee injuries.

Thigh section



The powerful legs of Pearl enabled him to squat with over 600 pounds, something few men had done prior to 1960.

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If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

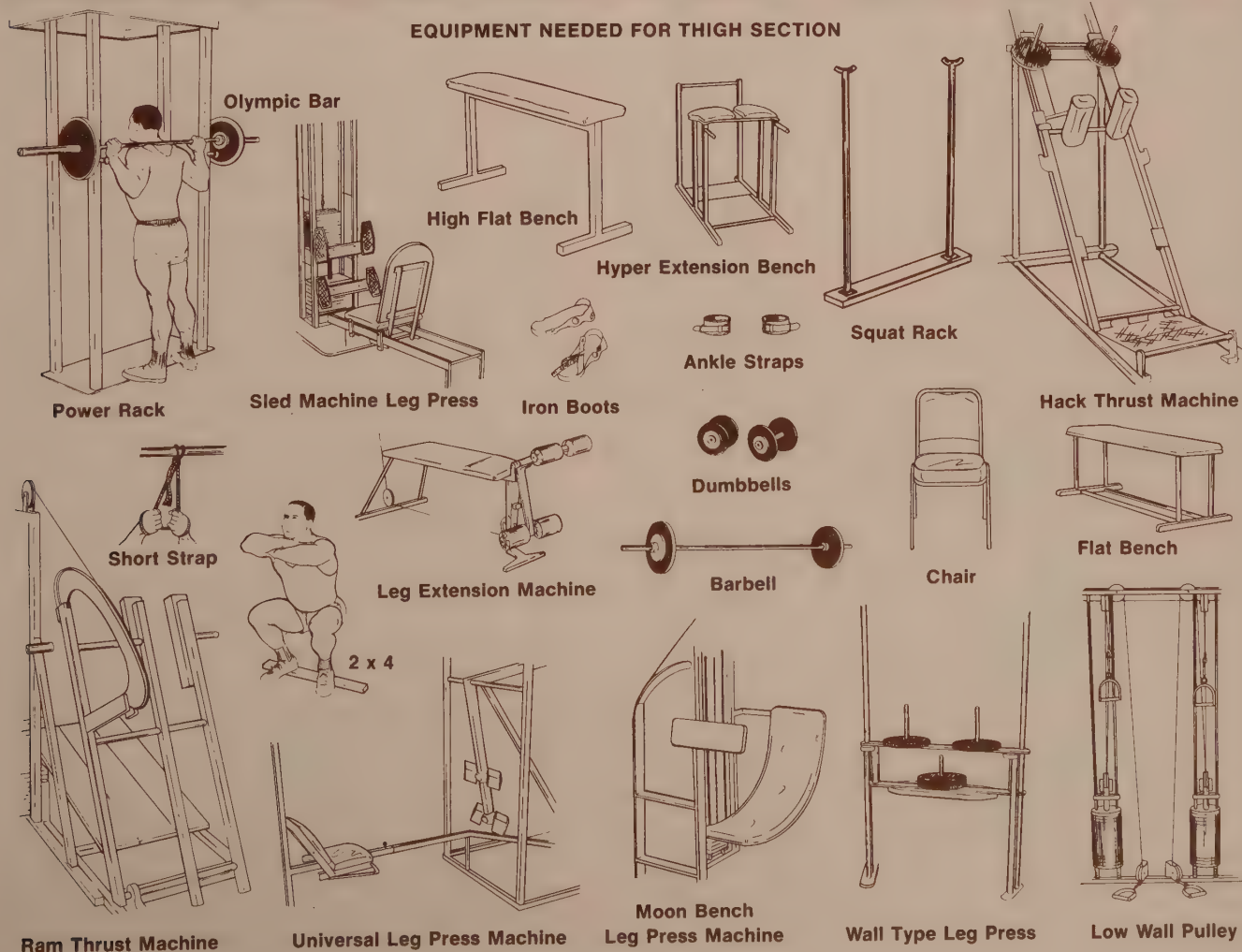
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

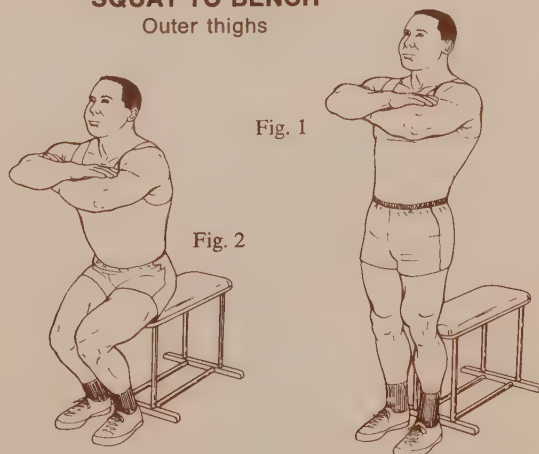
● Easy ▲ Intermediate ■ Difficult ★ Hard

EQUIPMENT NEEDED FOR THIGH SECTION



FLAT FOOTED CLOSE STANCE FREE HAND SQUAT TO BENCH

Outer thighs



● Flat Footed Close Stance Free Hand Squat to Bench

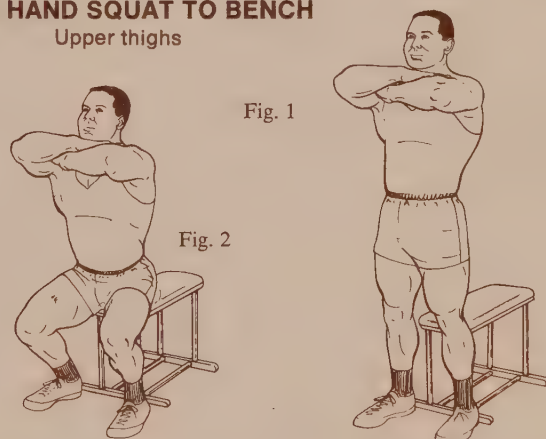
Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Stand erect with your arms crossed over your chest. Keep your head up, back straight and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

● Flat Footed Medium Stance Free Hand Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Stand erect with your arms crossed over your chest. Keep your head up, back straight and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale.

FLAT FOOTED MEDIUM STANCE FREE HAND SQUAT TO BENCH

Upper thighs

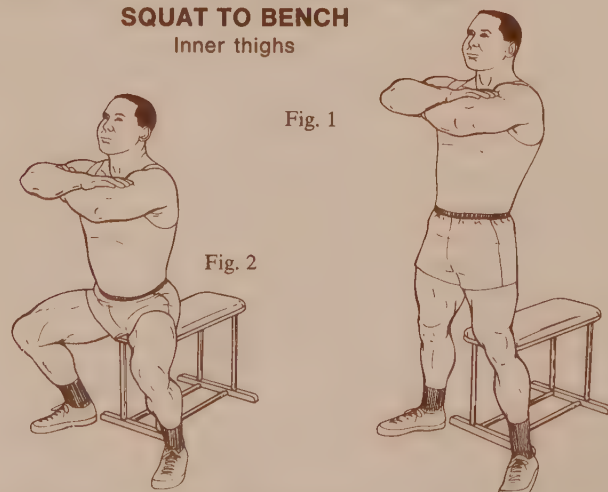


● Flat Footed Wide Stance Free Hand Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Stand erect with your arms crossed over your chest. Keep your head up, back straight and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight and your knees pointing outward. Return to starting position and exhale.

FLAT FOOTED WIDE STANCE FREE HAND SQUAT TO BENCH

Inner thighs



● Flat Footed Close Stance Free Hand Squat to Bench

Outer thighs

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head

should remain up, back straight, and your knees close together. Return to starting position and exhale.

● Flat Footed Medium Stance Free Hand Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale.

● Flat Footed Wide Stance Free Hand Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale.

● Flat Footed Close Stance Free Hand Nonlock Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and knees close together. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the free hand nonlock squat over again until the prescribed number of repetitions are completed.

● Flat Footed Wide Stance Free Hand Nonlock Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees pointing outward. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the free hand non-

FLAT FOOTED MEDIUM STANCE FREE HAND SQUAT

Upper thighs



Fig. 1



Fig. 2

FLAT FOOTED WIDE STANCE FREE HAND SQUAT

Inner thighs



Fig. 1



Fig. 2

FLAT FOOTED WIDE STANCE FREE HAND NONLOCK SQUAT

Inner thighs



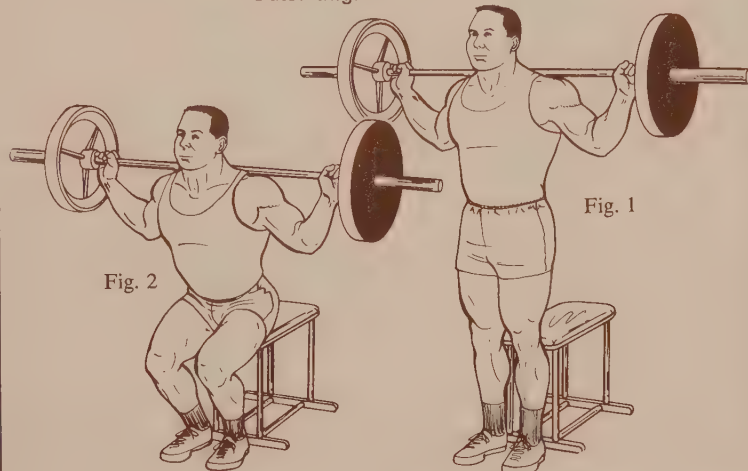
Fig. 1



Fig. 2

FLAT FOOTED CLOSE STANCE BARBELL SQUAT TO BENCH

Outer thighs



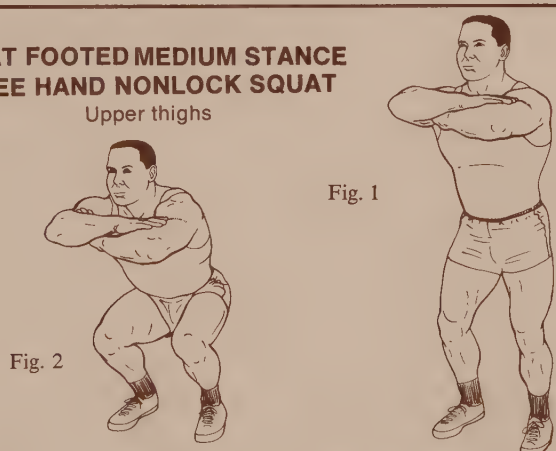
lock squat over again until the prescribed number of repetitions are completed.

▲ Flat Footed Close Stance Barbell Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

FLAT FOOTED MEDIUM STANCE FREE HAND NONLOCK SQUAT

Upper thighs

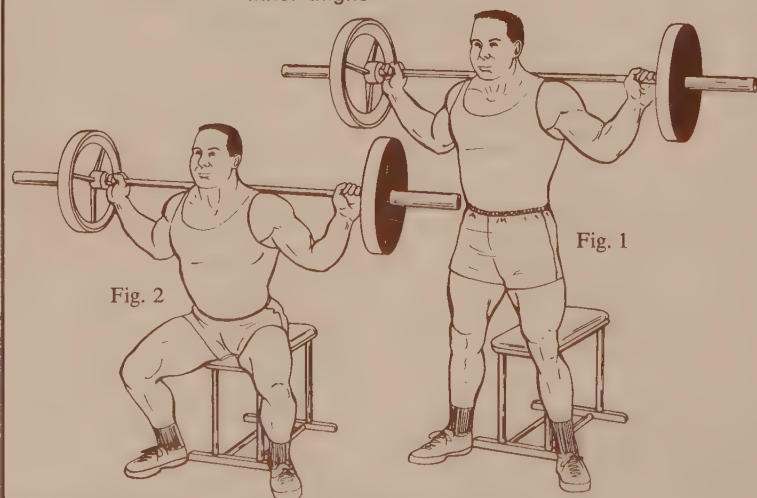


● Flat Footed Medium Stance Free Hand Nonlock Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the free hand nonlock squat over again until the prescribed number of repetitions are completed.

FLAT FOOTED WIDE STANCE BARBELL SQUAT TO BENCH

Inner thighs



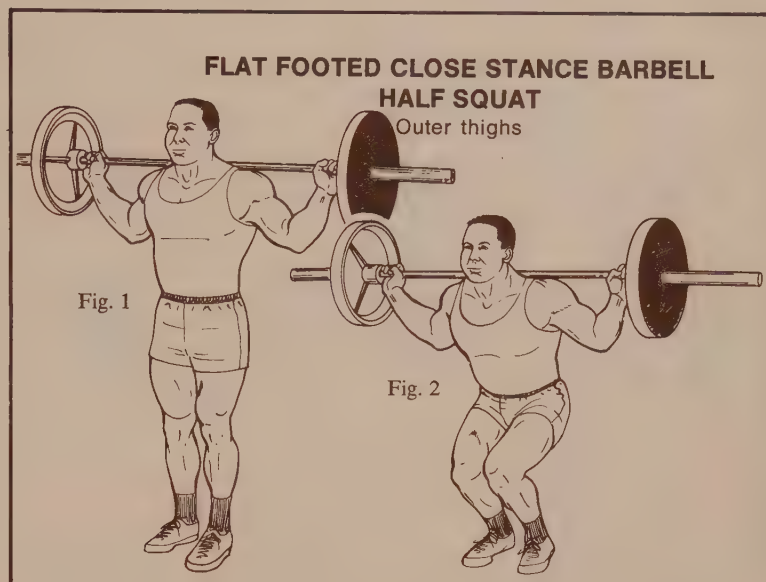
▲ Flat Footed Wide Stance Barbell Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale.

▲ Flat Footed Medium Stance Barbell Squat to Bench

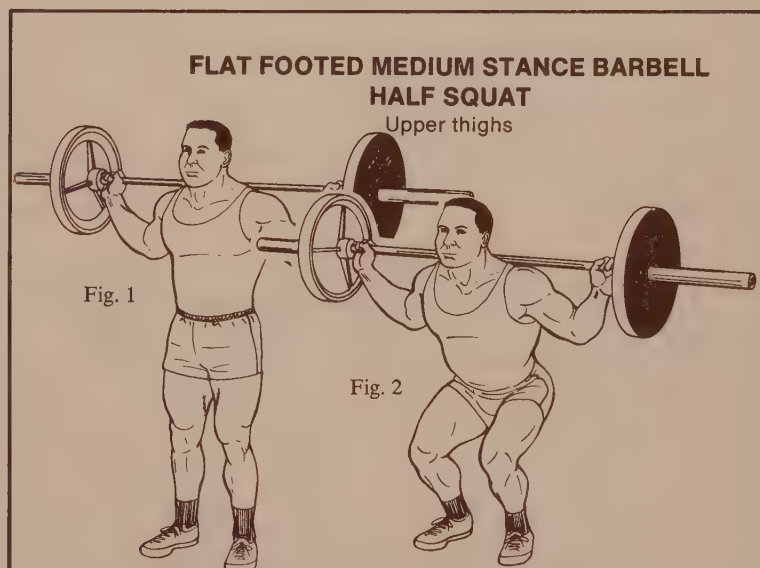
Upper thighs

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale.



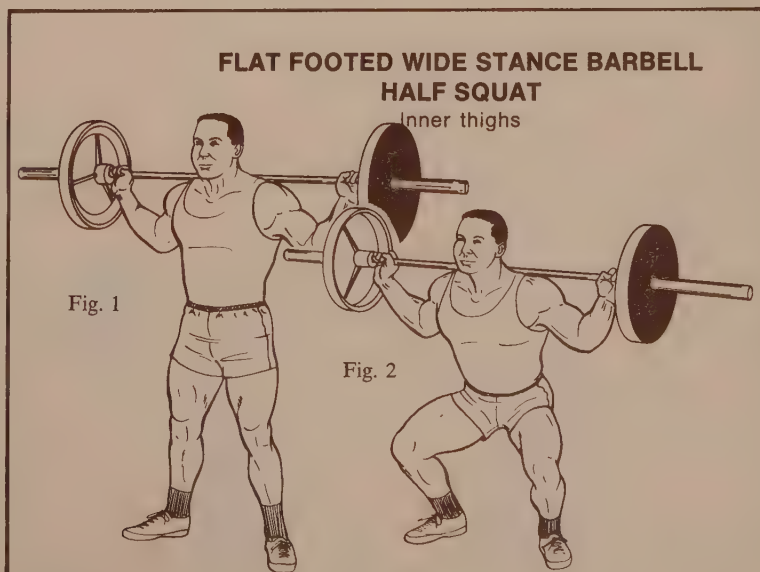
▲ Flat Footed Close Stance Barbell Half Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.



▲ Flat Footed Medium Stance Barbell Half Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale.

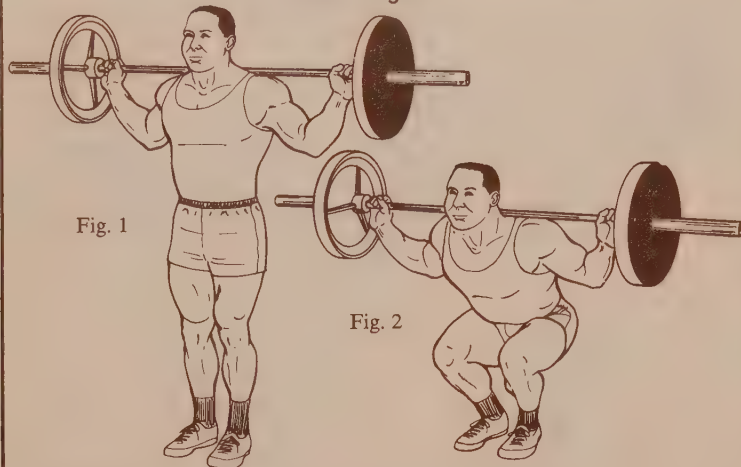


▲ Flat Footed Wide Stance Barbell Half Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and knees pointing outward. Return to starting position and exhale.

FLAT FOOTED CLOSE STANCE BARBELL SQUAT

Outer thighs



Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.

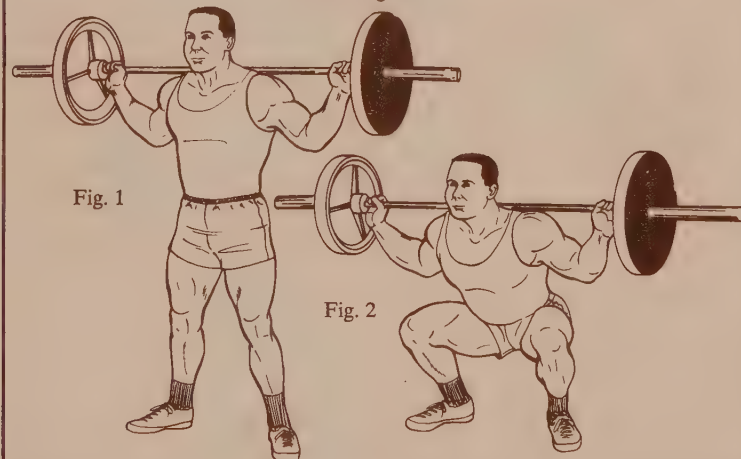
▲ Flat Footed Medium Stance Barbell Squat

Upper thighs

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale.

FLAT FOOTED WIDE STANCE BARBELL SQUAT

Inner thighs



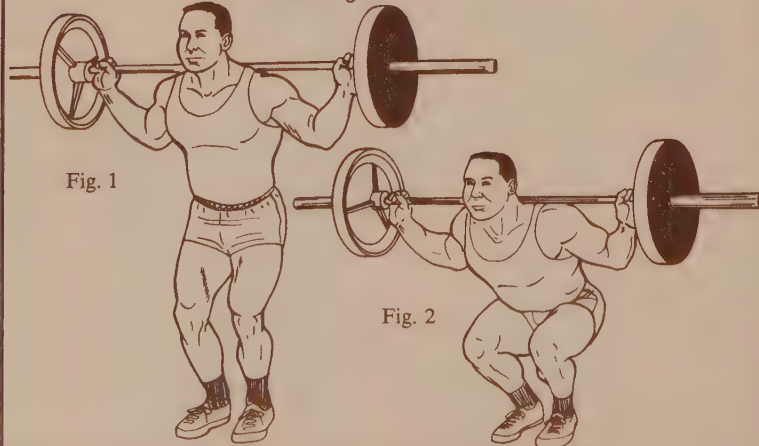
Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees pointing outward. Return to starting position and exhale.

▲ Flat Footed Close Stance Barbell Nonlock Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the squat over again until the prescribed number of repetitions are completed.

FLAT FOOTED CLOSE STANCE BARBELL NONLOCK SQUAT

Outer thighs

**▲ Flat Footed Medium Stance Barbell Nonlock Squat**

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spac-

ing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees slightly to the sides. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the squat over again until the prescribed number of repetitions are completed.

▲ Flat Footed Wide Stance Barbell Nonlock Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and knees pointing outward. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the squat over again until the prescribed number of repetitions are completed.

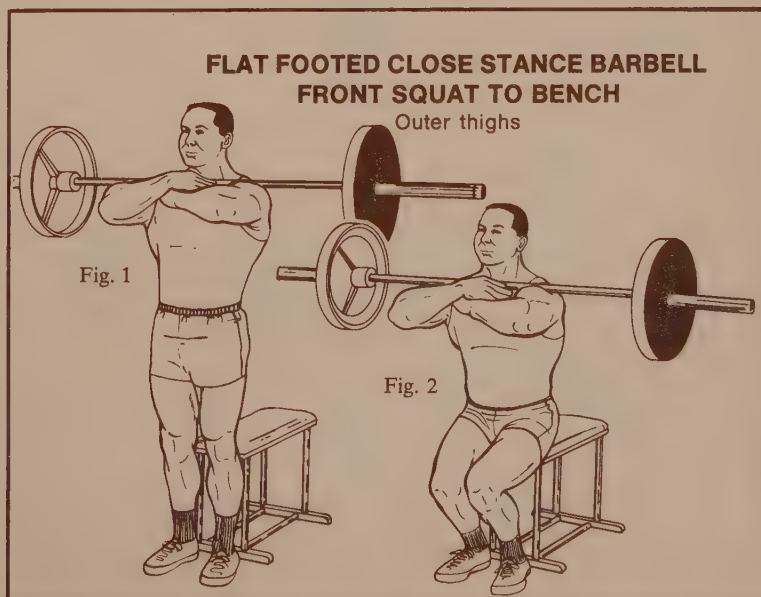
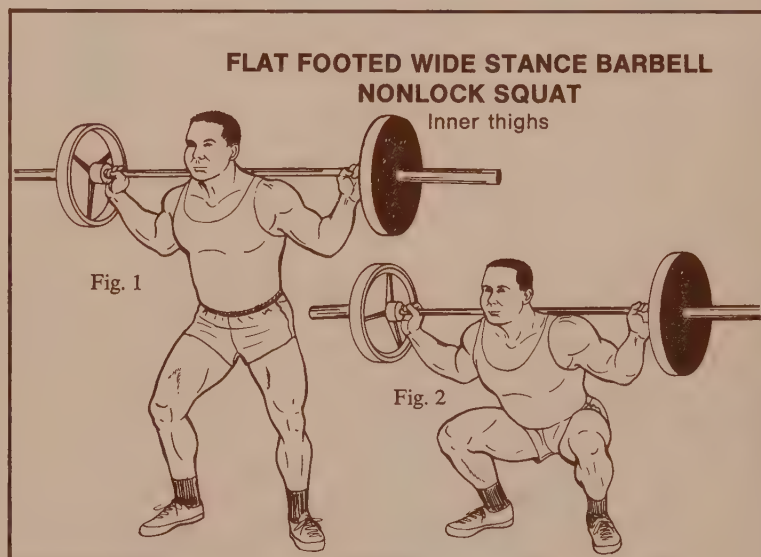
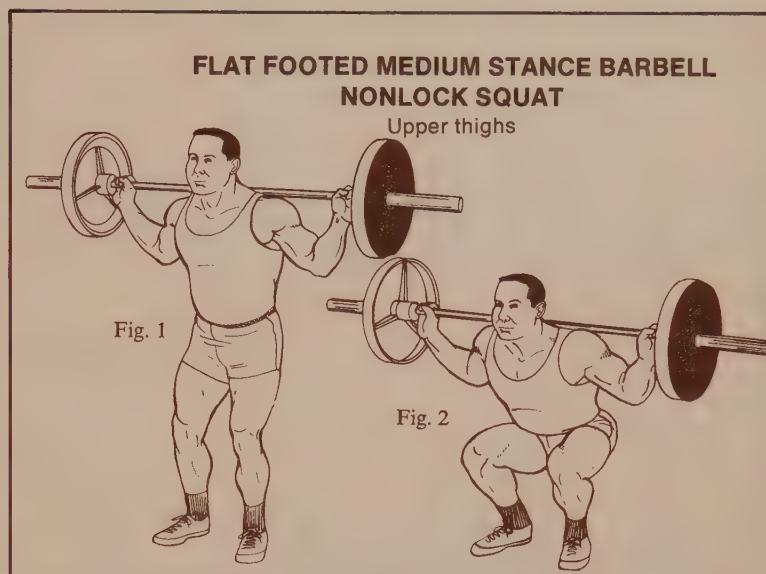
■ Flat Footed Close Stance Barbell Front Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.

■ Flat Footed Medium Stance Barbell Front Squat to Bench

Upper thighs

Place a bench that is about sixteen inches high behind you and stand close enough to



FLAT FOOTED WIDE STANCE BARBELL FRONT SQUAT TO BENCH

Inner thighs

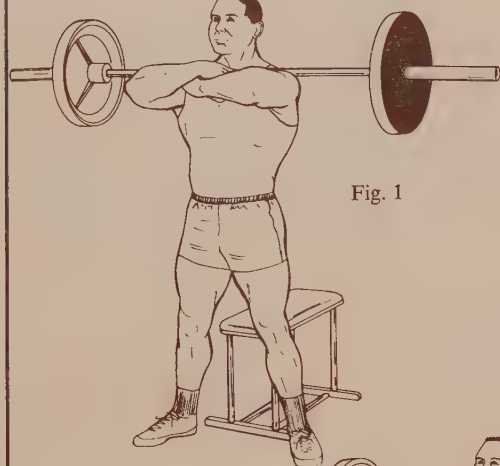


Fig. 1

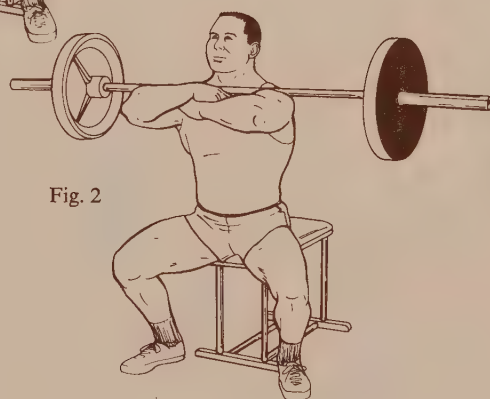


Fig. 2

FLAT FOOTED WIDE STANCE BARBELL FRONT HALF SQUAT

Inner thighs

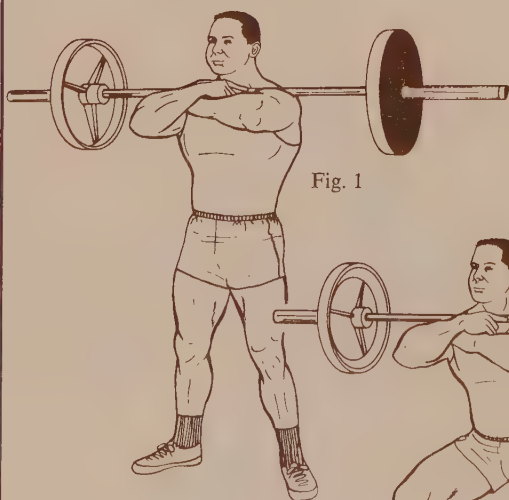


Fig. 1

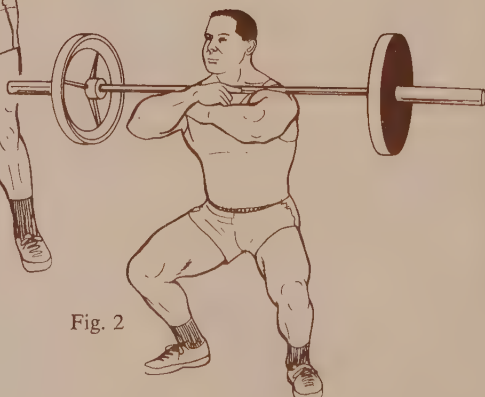


Fig. 2

the bench so your heels are about even with the end of the bench closest to you. Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale.

■ Flat Footed Wide Stance Barbell Front Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and knees pointing outward. Return to starting position and exhale.

■ Flat Footed Wide Stance Barbell Front Half Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and your knees pointing out to the sides. Return to starting position and exhale.

■ Flat Footed Medium Stance Barbell Front Half Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale.

■ Flat Footed Close Stance Barbell Front Half Squat

Outer thighs

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

■ Flat Footed Close Stance Barbell Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.

■ Flat Footed Medium Stance Barbell Front Squat

Upper thighs

Place a barbell high on your upper chest so it is resting on your front deltoids and

FLAT FOOTED MEDIUM STANCE BARBELL FRONT HALF SQUAT

Upper thighs



Fig. 1

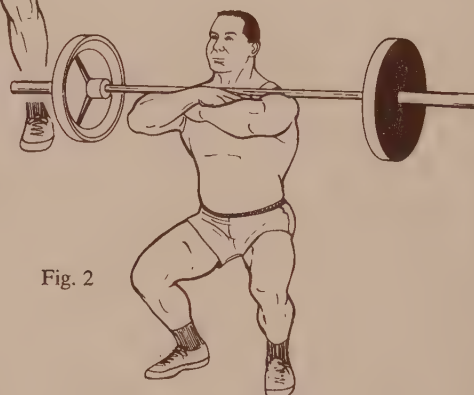


Fig. 2

FLAT FOOTED CLOSE STANCE BARBELL FRONT SQUAT

Outer thighs



Fig. 1

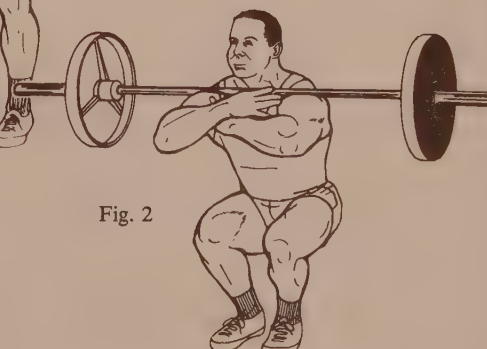
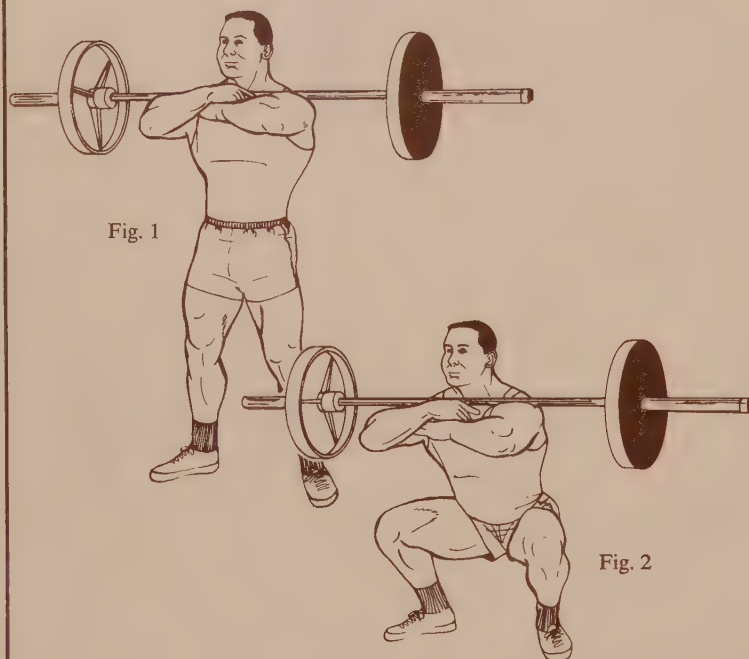


Fig. 2

FLAT FOOTED WIDE STANCE BARBELL FRONT SQUAT

Inner thighs



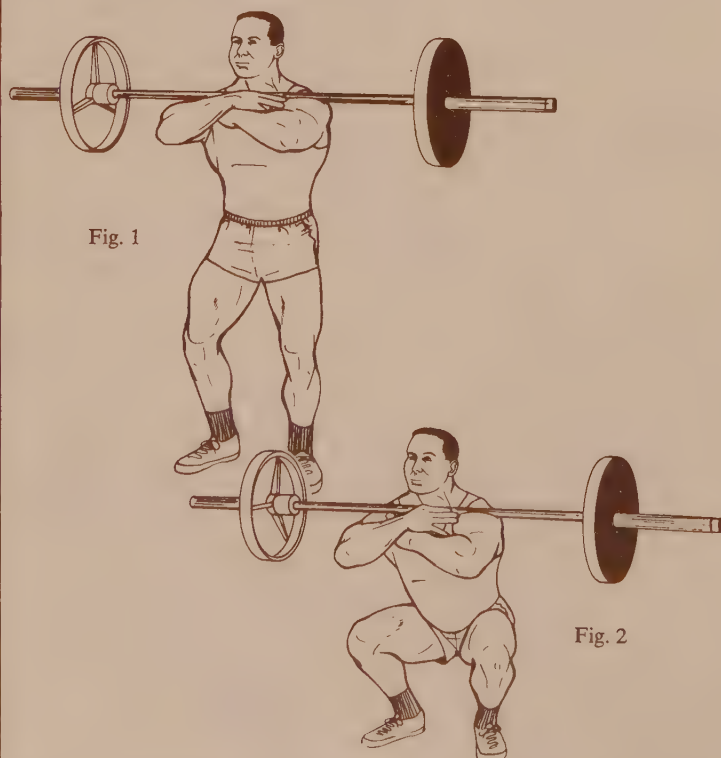
upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and knees slightly out to the sides. Return to starting position and exhale.

■ Flat Footed Wide Stance Barbell Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees pointing out to the sides. Return to starting position and exhale.

FLAT FOOTED MEDIUM STANCE BARBELL NONLOCK FRONT SQUAT

Upper thighs



■ Flat Footed Close Stance Barbell Nonlock Front Squat

Outer thighs

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your head up, back straight, and feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees close together. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the front squat over again until the prescribed number of repetitions are completed.

■ Flat Footed Medium Stance Barbell Nonlock Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and

your left hand on the bar about even with your right deltoid. Keep your head up, back straight and feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and your knees slightly to the sides. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the front squat over again until the prescribed number of repetitions are completed.

■ Flat Footed Wide Stance Barbell Nonlock Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid. Keep your head up; back straight, and feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and your knees pointing outward. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the front squat over again until the prescribed number of repetitions are completed.

■ Flat Footed Close Stance Barbell Hack Squat

Place a barbell at arm's length behind you keeping the bar tucked in solidly against your body where your buttocks and upper thighs meet. Use a palms facing to the rear grip with your hand spacing about the width of your hips. Now, turn your wrist up to lock the bar into an even more solid position. The bar is to remain solidly against your upper thighs and lower buttocks during the entire exercise. It is not to slide up and down on your leg biceps. Keep your head up and your eyes staring upward at about a 45° angle. Keep your back straight and feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, eyes looking upward, back straight and knees close together. Return to starting position and exhale.

FLAT FOOTED WIDE STANCE BARBELL NONLOCK FRONT SQUAT

Inner thighs



Fig. 1



Fig. 2

FLAT FOOTED CLOSE STANCE BARBELL HACK SQUAT

Outer thighs

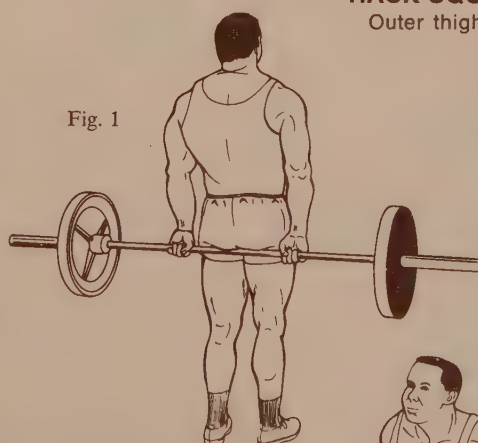


Fig. 1

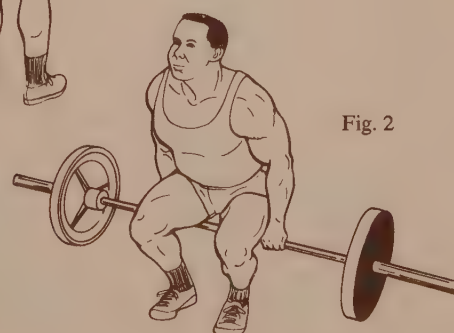
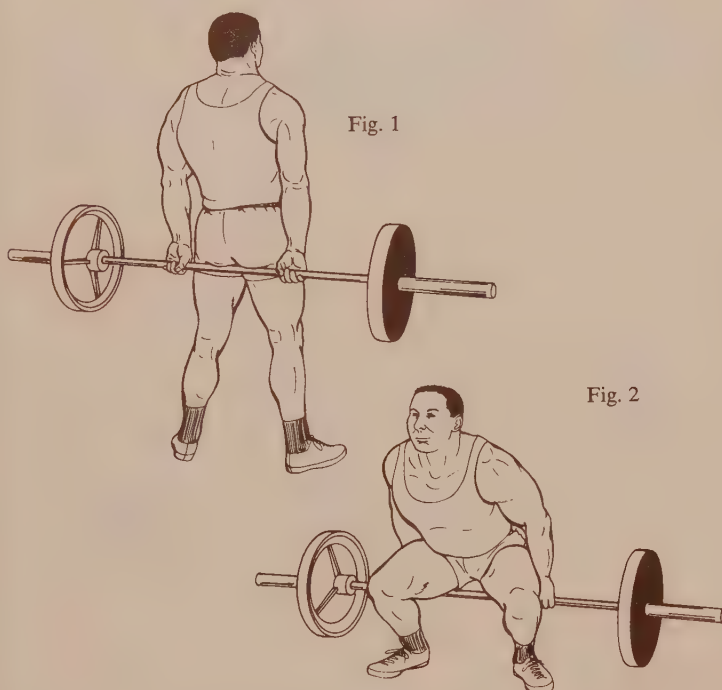


Fig. 2

FLAT FOOTED WIDE STANCE BARBELL HACK SQUAT

Inner thighs



■ Flat Footed Medium Stance Barbell Hack Squat

Upper thighs

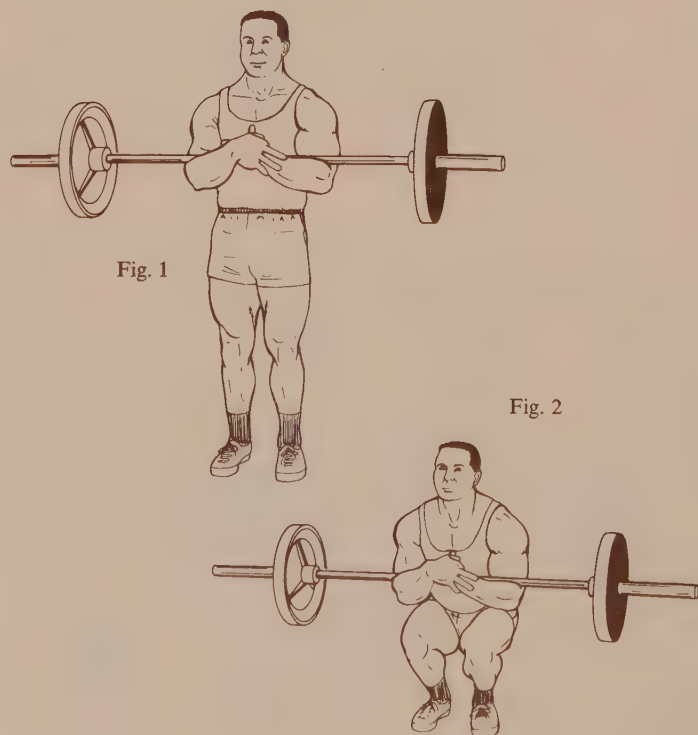
Place a barbell at arm's length behind you keeping the bar tucked in solidly against your body where your buttocks and upper thighs meet. Use a palms up facing to the rear grip with your hand spacing about the width of your hips. Now, turn your wrist up to lock the bar into an even more solid position. The bar is to remain solidly against your upper thighs and lower buttocks during the entire exercise. It is not to slide up and down on your leg biceps. Keep your head up and your eyes staring upward at about a 45° angle. Keep your back straight and feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, eyes looking upward, back straight and knees slightly out to the sides. Return to starting position and exhale.

■ Flat Footed Wide Stance Barbell Hack Squat

Place a barbell at arm's length behind you keeping the bar tucked in solidly against your body where your buttocks and upper thighs meet. Use a palms up facing to the rear grip with your hand spacing about the width of your hips. Now, turn your wrist up to lock the bar into an even more solid position. The bar is to remain solidly against your upper thighs and lower buttocks during the entire exercise. It is not to slide up and down on your leg biceps. Keep your head up and your eyes staring upward at about a 45° angle. Keep your back straight and feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, eyes looking upward, back straight and knees pointing outward. Return to starting position and exhale.

FLAT FOOTED CLOSE STANCE ZERCHER SQUAT

Outer thighs



■ Flat Footed Close Stance Zercher Squat

Place a barbell against your lower chest holding it in the crook of your arms. Cross your right forearm over your left forearm to help stabilize the bar. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.

■ Flat Footed Medium Stance Zercher Squat

Place a barbell against your lower chest holding it in the crook of your arms. Cross your right forearm over your left forearm to help stabilize the bar. Keep your head up, back straight, and feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale.

■ Flat Footed Wide Stance Zercher Squat

Inner thighs

Place a barbell against your lower chest holding it in the crook of your arms. Cross your right forearm over your left forearm to help stabilize the bar. Keep your head up, back straight, and feet planted firmly on the floor about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees pointing outward. Return to starting position and exhale.

● Heels Elevated Close Stance Free Hand Squat to Bench

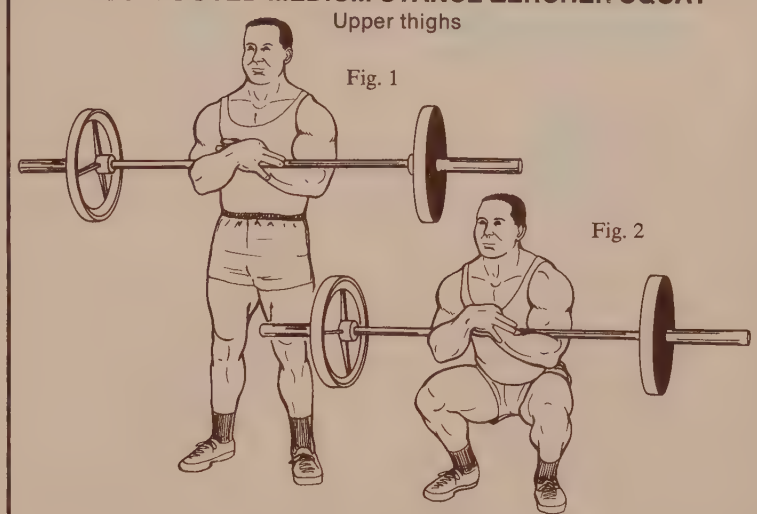
Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on the 2x4 piece of wood about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

● Heels Elevated Medium Stance Free Hand Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on the 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your

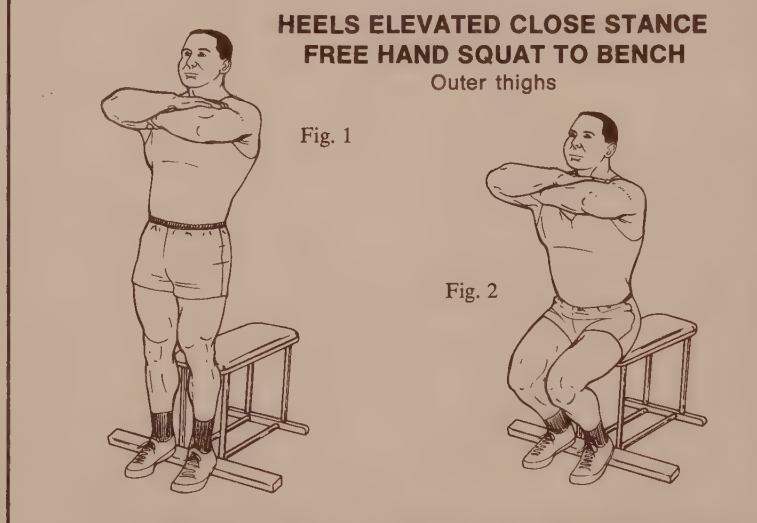
FLAT FOOTED MEDIUM STANCE ZERCHER SQUAT

Upper thighs



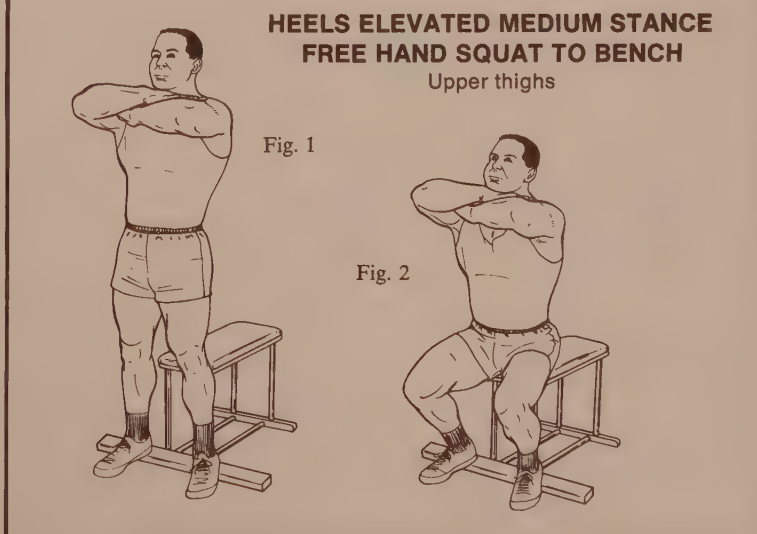
HEELS ELEVATED CLOSE STANCE FREE HAND SQUAT TO BENCH

Outer thighs



HEELS ELEVATED MEDIUM STANCE FREE HAND SQUAT TO BENCH

Upper thighs



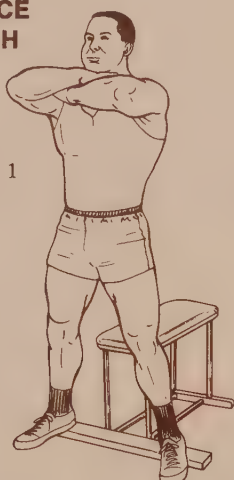
HEELS ELEVATED WIDE STANCE FREE HAND SQUAT TO BENCH

Inner thighs



Fig. 2

Fig. 1



HEELS ELEVATED CLOSE STANCE FREE HAND SQUAT

Outer thighs



Fig. 2

Fig. 1



HEELS ELEVATED WIDE STANCE FREE HAND SQUAT

Inner thighs



Fig. 2

Fig. 1



thighs and totally sit on the bench. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale.

● Heels Elevated Wide Stance Free Hand Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on the 2x4 piece of wood about thirty inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale.

● Heels Elevated Close Stance Free Hand Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

● Heels Elevated Medium Stance Free Hand Squat

Upper thighs

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale.

● Heels Elevated Wide Stance Free Hand Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale.

● **Heels Elevated Close Stance Free Hand Nonlock Squat**

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the free hand nonlock squat over again until the prescribed number of repetitions are completed.

● **Heels Elevated Wide Stance Free Hand Nonlock Squat**

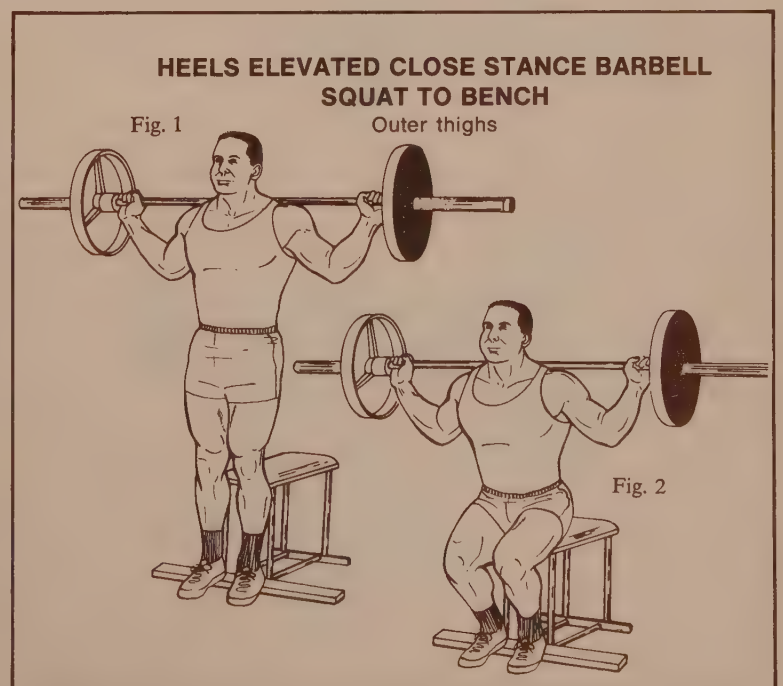
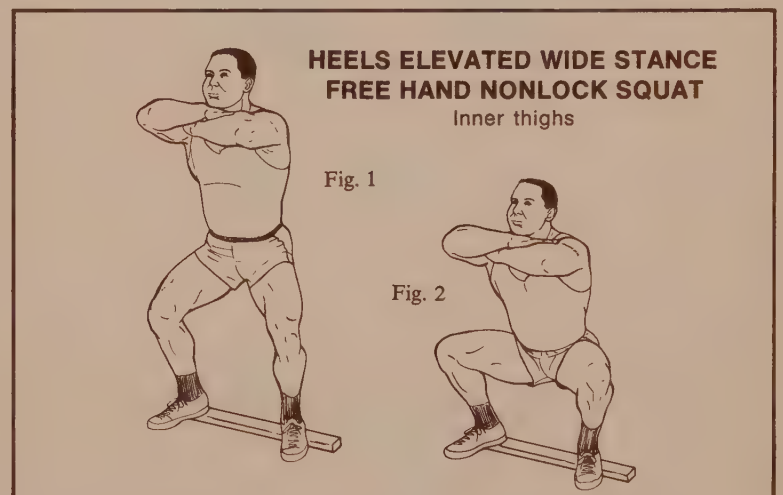
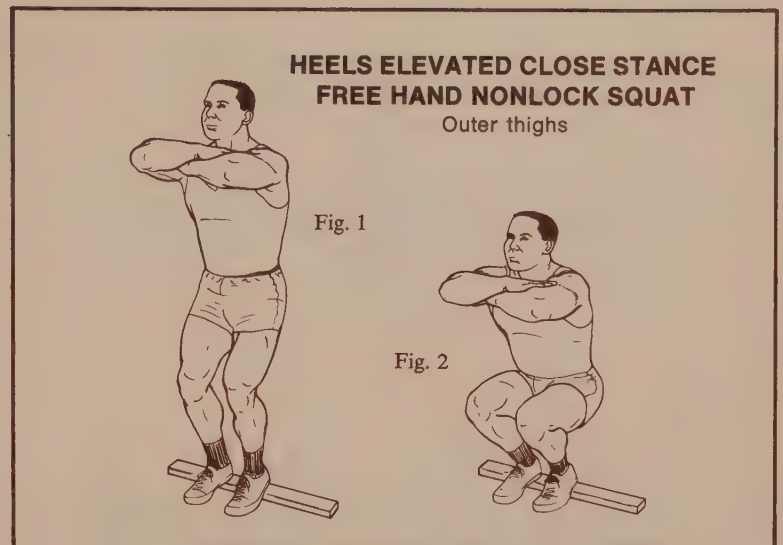
Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the free hand nonlock squat over again until the prescribed number of repetitions are completed.

● **Heels Elevated Medium Stance Free Hand Nonlock Squat**
Upper thighs

Stand erect with your arms crossed over your chest. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor and exhale. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the free hand nonlock squat over again until the prescribed number of repetitions are completed.

▲ **Heels Elevated Close Stance Barbell Squat to Bench**

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise.



HEELS ELEVATED WIDE STANCE BARBELL SQUAT TO BENCH

Inner thighs

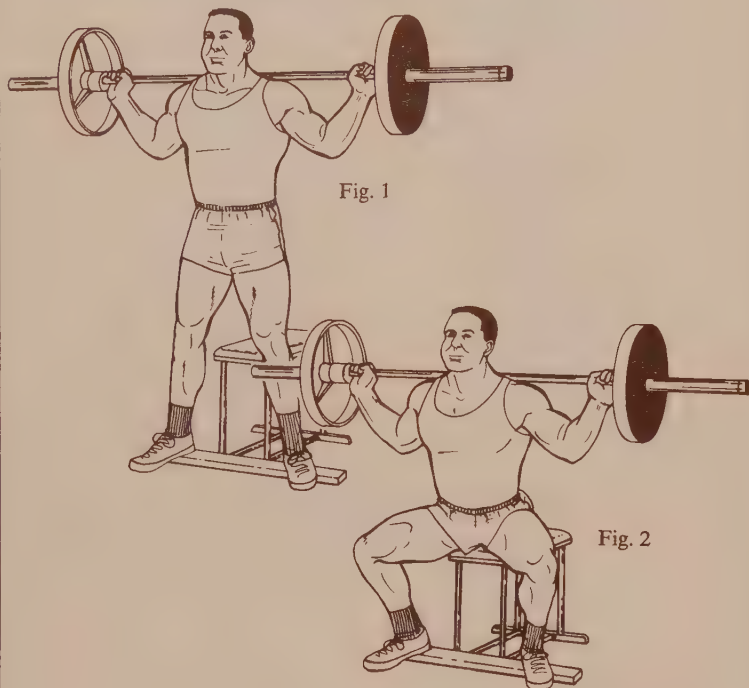


Fig. 1

Fig. 2

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and place your heels on the 2x4 piece of wood about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

▲ Heels Elevated Wide Stance Barbell Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and place your heels on the 2x4 piece of wood about thirty inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and knees pointing outward. Return to starting position and exhale.

HEELS ELEVATED CLOSE STANCE BARBELL HALF SQUAT

Outer thighs

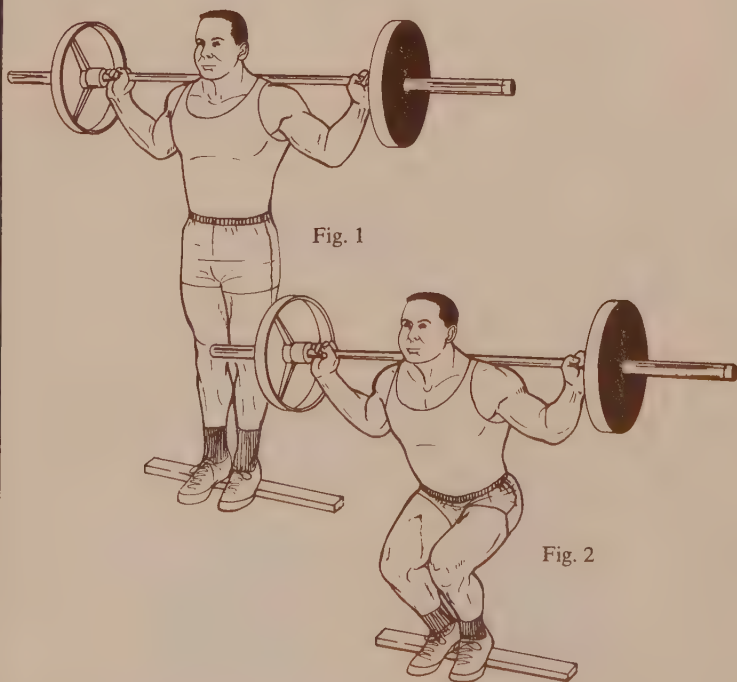


Fig. 1

Fig. 2

▲ Heels Elevated Medium Stance Barbell Squat to Bench

Upper thighs

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and place your heels on the 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight and your knees slightly out to the sides. Return to starting position and exhale.

▲ Heels Elevated Close Stance Barbell Half Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you.

Keep your head up, back straight and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.

▲ Heels Elevated Medium Stance Barbell Half Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale.

▲ Heels Elevated Wide Stance Barbell Half Squat

Inner thighs

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale.

▲ Heels Elevated Close Stance Barbell Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

▲ Heels Elevated Medium Stance Barbell Squat

Upper thighs

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until

HEELS ELEVATED MEDIUM STANCE BARBELL HALF SQUAT

Upper thighs



Fig. 1



Fig. 2

HEELS ELEVATED CLOSE STANCE BARBELL SQUAT

Outer thighs



Fig. 1

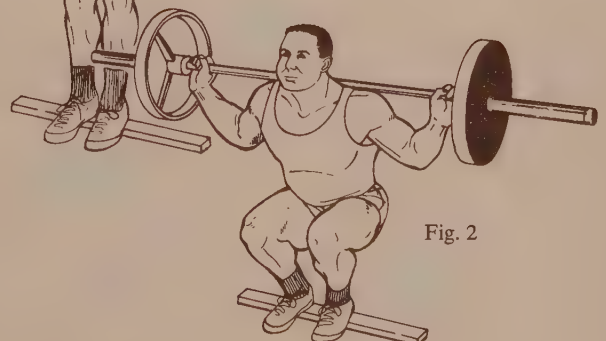
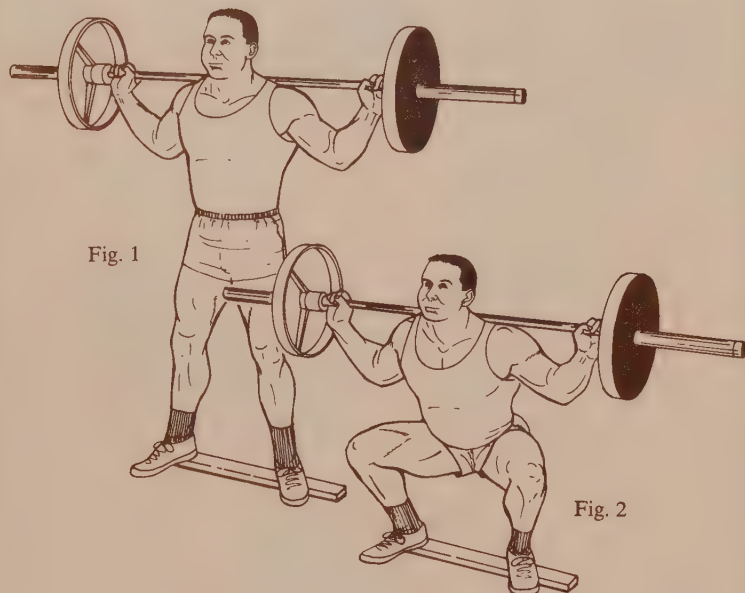


Fig. 2

HEELS ELEVATED WIDE STANCE BARBELL SQUAT

Inner thighs



your upper thighs are parallel with the floor. Your head should remain up, back straight and your knees slightly out to the sides. Return to starting position and exhale.

▲ Heels Elevated Wide Stance Barbell Squat

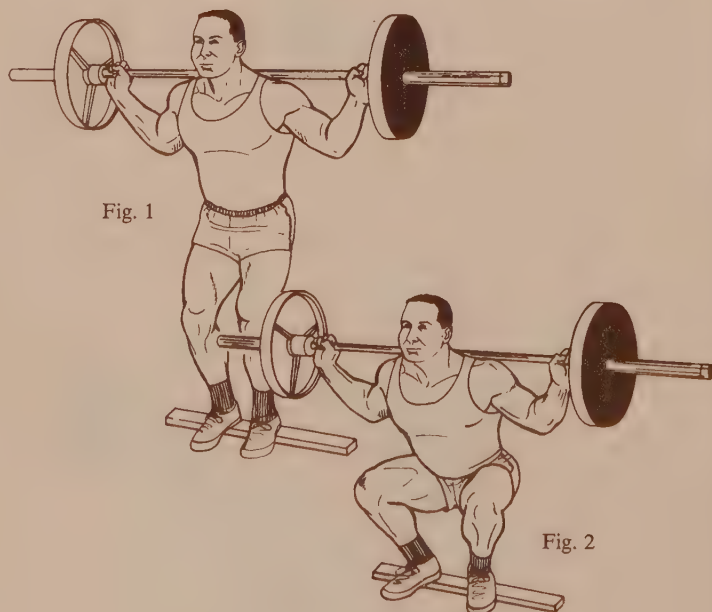
Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and your knees pointing outward. Return to starting position and exhale.

▲ Heels Elevated Close Stance Barbell Nonlock Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees close. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the squat over again until the prescribed number of repetitions are completed.

HEELS ELEVATED CLOSE STANCE BARBELL NONLOCK SQUAT

Outer thighs



▲ Heels Elevated Medium Stance Barbell Nonlock Squat

Upper thighs

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the squat over again until the prescribed number of repetitions are completed.

▲ Heels Elevated Wide Stance Barbell Nonlock Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight, and your

heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees pointing outward. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the squat over again until the prescribed number of repetitions are completed.

■ Heels Elevated Close Stance Barbell Front Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and place your heels on the 2x4 piece of wood about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

■ Heels Elevated Medium Stance Barbell Front Squat to Bench

Upper thighs

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Place a barbell high on your chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and place your heels on the 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight

HEELS ELEVATED WIDE STANCE BARBELL NONLOCK SQUAT

Inner thighs



Fig. 1

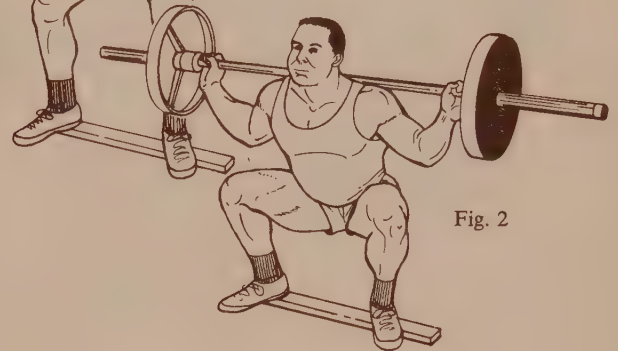


Fig. 2

HEELS ELEVATED CLOSE STANCE BARBELL FRONT SQUAT TO BENCH

Outer thighs

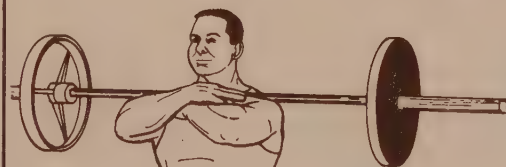


Fig. 1

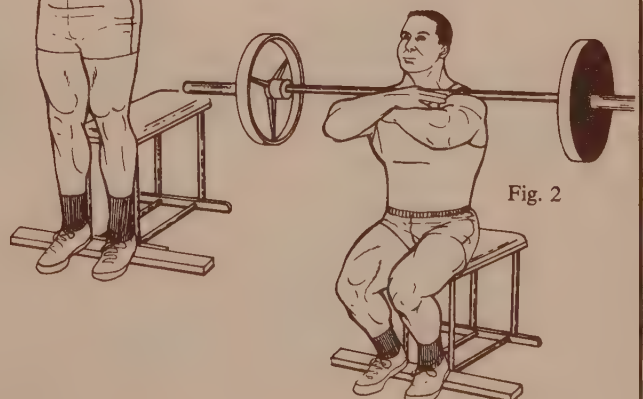


Fig. 2

HEELS ELEVATED WIDE STANCE BARBELL FRONT SQUAT TO BENCH

Inner thighs

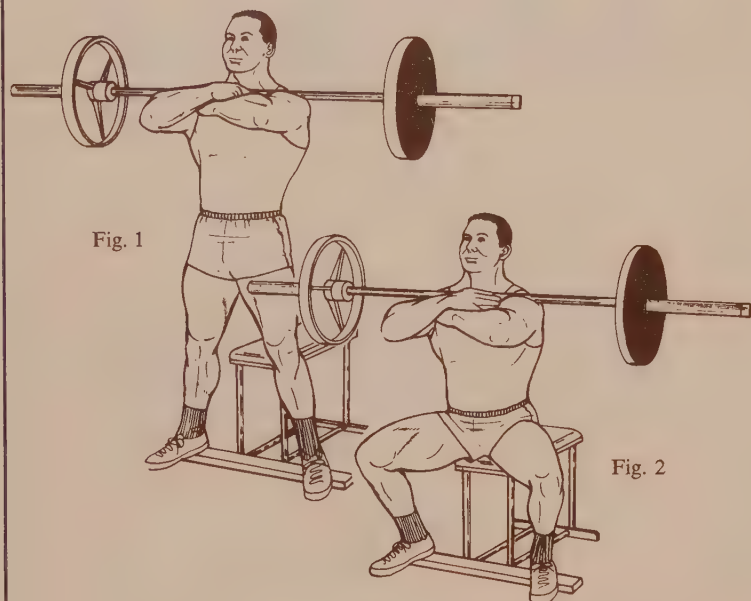


Fig. 1

Fig. 2

HEELS ELEVATED CLOSE STANCE BARBELL FRONT HALF SQUAT

Outer thighs

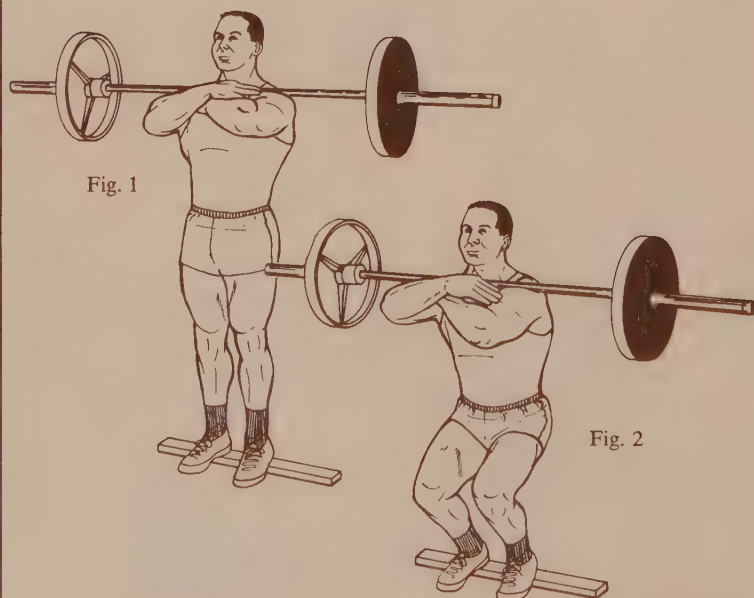


Fig. 1

Fig. 2

and your knees slightly out to the sides. Return to starting position and exhale.

■ Heels Elevated Wide Stance Barbell Front Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and place your heels on the 2x4 piece of wood about thirty inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale.

■ Heels Elevated Close Stance Barbell Front Half Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight and your knees close together. Return to starting position and exhale.

■ Heels Elevated Medium Stance Barbell Front Half Squat

Upper thighs

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are

half way of being parallel with the floor. Your head should remain up, back straight, and your knees slightly to the sides. Return to starting position and exhale.

■ Heels Elevated Wide Stance Barbell Front Half Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are half way of being parallel with the floor. Your head should remain up, back straight, and your knees pointing outward. Return to starting position and exhale.

■ Heels Elevated Close Stance Barbell Front Squat

Outer thighs

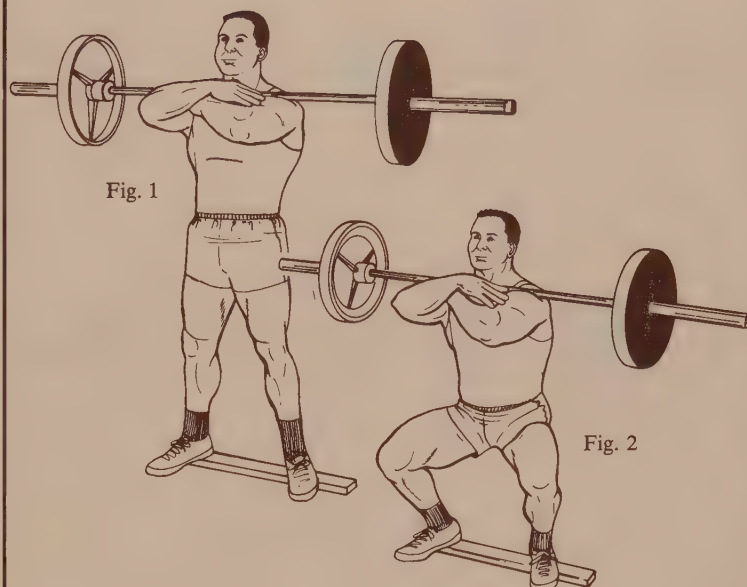
Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.

■ Heels Elevated Medium Stance Barbell Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale.

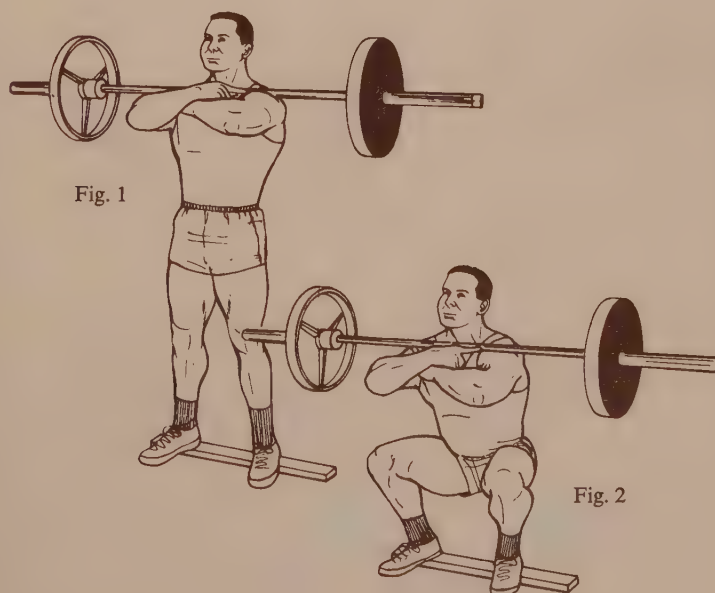
HEELS ELEVATED WIDE STANCE BARBELL FRONT HALF SQUAT

Inner thighs



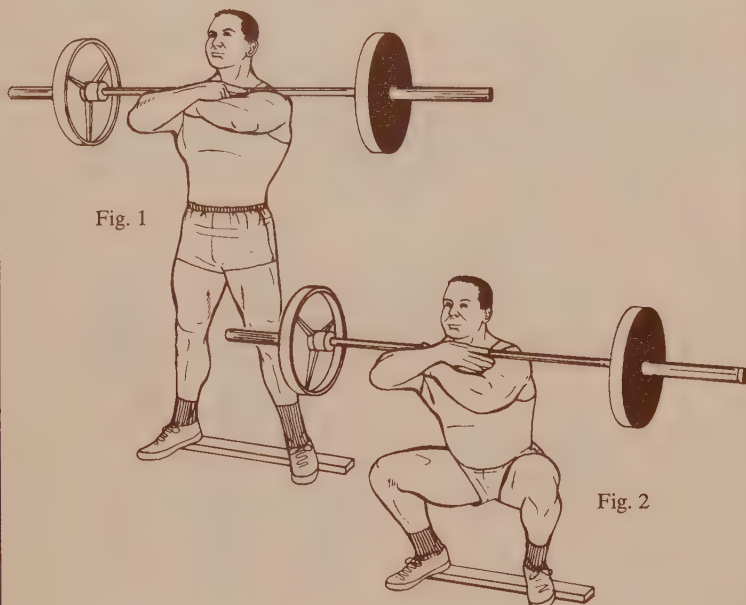
HEELS ELEVATED MEDIUM STANCE BARBELL FRONT SQUAT

Upper thighs



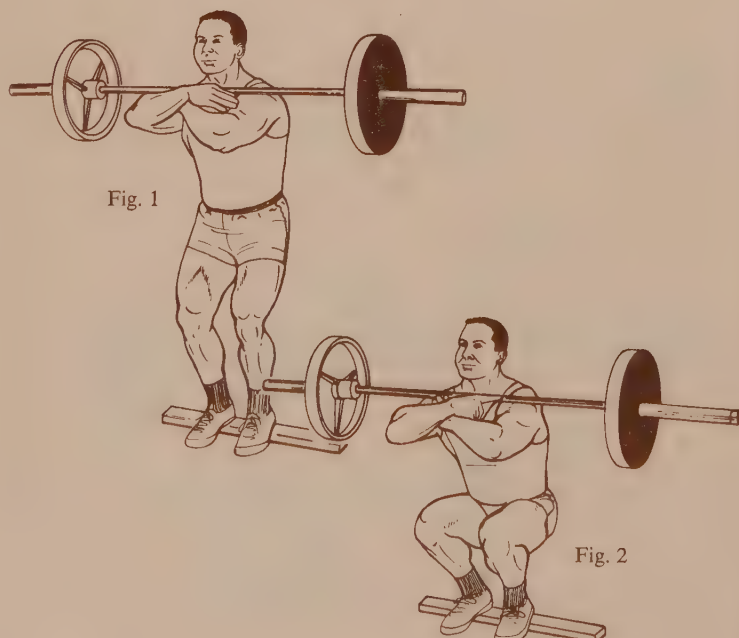
HEELS ELEVATED WIDE STANCE BARBELL FRONT SQUAT

Inner thighs



HEELS ELEVATED CLOSE STANCE BARBELL NONLOCK FRONT SQUAT

Outer thighs



■ Heels Elevated Wide Stance Barbell Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees pointing out to the sides. Return to starting position and exhale.

■ Heels Elevated Close Stance Barbell Nonlock Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and knees close together. Return to starting position at the top and exhale but do not lock your leg out or take a short rest before starting the next repetition. Immediately start the front squat over again until the prescribed number of repetitions are completed.

■ Heels Elevated Medium Stance Barbell Nonlock Front Squat

Upper thighs

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees slightly to the sides. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the

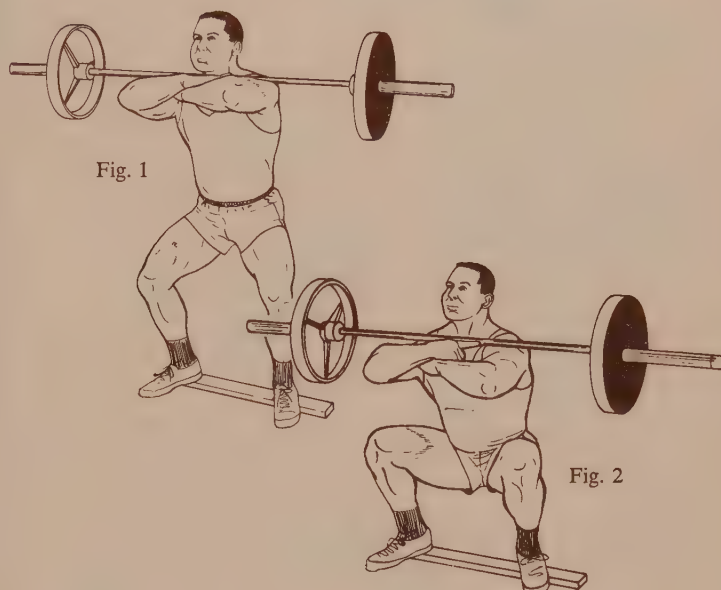
next repetition. Immediately start the front squat over again until the prescribed number of repetitions are completed.

■ Heels Elevated Wide Stance Barbell Nonlock Front Squat

Place a barbell high on your upper chest so it is resting on your front deltoids and upper thorax. Place your right hand on the bar about even with your left deltoid and your left hand on the bar about even with your right deltoid. Keep your upper arms slightly above parallel to help keep the bar from sliding down. Keep your head up, back straight, and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and knees pointing outward. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the front squat over again until the prescribed number of repetitions are completed.

HEELS ELEVATED WIDE STANCE BARBELL NONLOCK FRONT SQUAT

Inner thighs

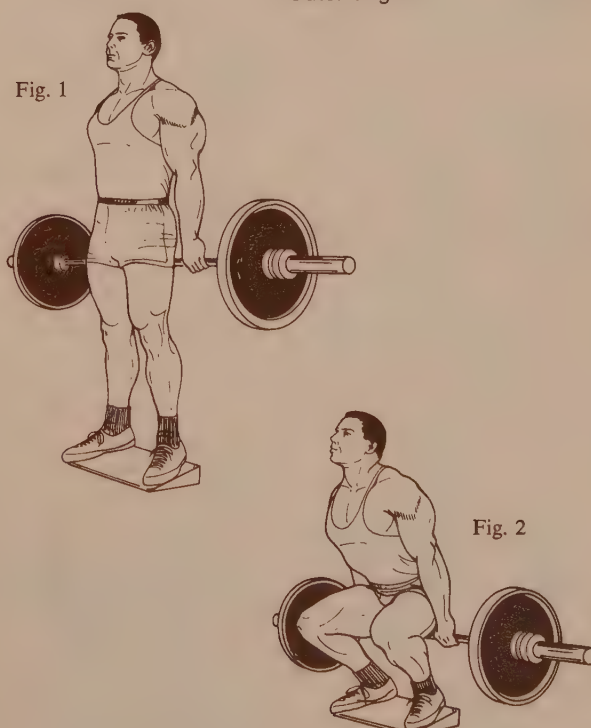


▲ Heels Elevated Close Stance Barbell Hack Squat

Place a barbell at arm's length behind you keeping the bar tucked in solidly against your body where your buttocks and upper thighs meet. Use a palms up facing to the rear grip with your hand spacing about the width of your hips. Now, turn your wrist up to lock the bar into an even more solid position. The bar is to remain solidly against your upper thighs and lower buttocks during the entire exercise. It is not to slide up and down on your leg biceps. Keep your head up and your eyes staring upward at about a 45° angle. Keep your back straight and your feet on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, eyes looking upward, back straight and knees close together. Return to starting position and exhale.

HEELS ELEVATED CLOSE STANCE BARBELL HACK SQUAT

Outer thighs



▲ Heels Elevated Medium Stance Barbell Hack Squat

Upper thighs

Place a barbell at arm's length behind you keeping the bar tucked in solidly against your body where your buttocks and upper thighs meet. Use a palms up facing to the rear grip with your hand spacing about the width of your hips. Now, turn your wrist up to lock the bar into an even more solid position. The bar is to remain solidly

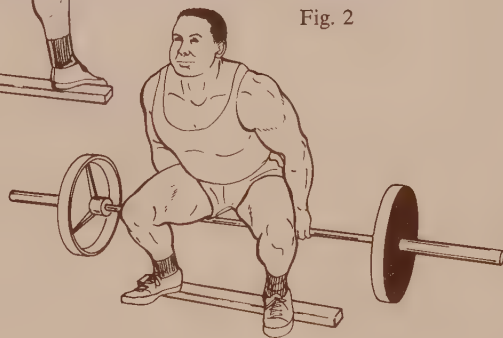
HEELS ELEVATED WIDE STANCE BARBELL HACK SQUAT

Inner thighs

Fig. 1



Fig. 2



against your upper thighs and lower buttocks during the entire exercise. It is not to slide up and down on your leg biceps. Keep your head up and your eyes staring upward at about a 45° angle. Keep your back straight and your feet on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, eyes looking upward, back straight, and knees slightly out to the sides. Return to starting position and exhale.

▲ Heels Elevated Wide Stance Barbell Hack Squat

Place a barbell at arm's length behind you keeping the bar tucked in solidly against your body where your buttocks and upper thighs meet. Use a palms up facing to the rear grip with your hand spacing about the width of your hips. Now, turn your wrist up to lock the bar into an even more solid position. The bar is to remain solidly against your upper thighs and lower buttocks during the entire exercise. It is not to slide up and down on your leg biceps. Keep your head up and your eyes staring upward at about a 45° angle. Keep your back straight and your feet on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, eyes looking upward, back straight and knees pointing outward. Return to starting position and exhale.

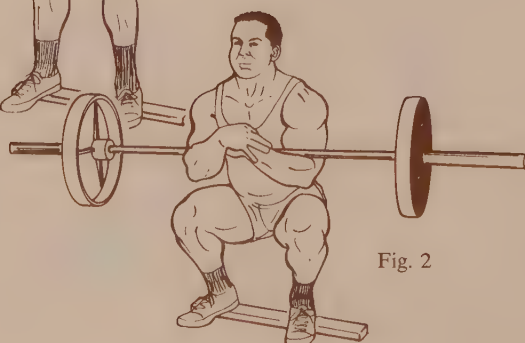
HEELS ELEVATED MEDIUM STANCE ZERCHER SQUAT

Upper thighs

Fig. 1



Fig. 2



■ Heels Elevated Close Stance Zercher Squat

Outer thighs

Place a barbell against your lower chest holding it in the crook of your arms. Cross your right forearm over your left forearm to help stabilize the bar. Keep your head up, back straight, and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees close together. Return to starting position and exhale.

■ Heels Elevated Medium Stance Zercher Squat

Place a barbell against your lower chest holding it in the crook of your arms. Cross your right forearm over your left forearm to help stabilize the bar. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are

parallel with the floor. Your head should remain up, back straight, and knees slightly out to the sides. Return to starting position and exhale.

■ Heels Elevated Wide Stance Zercher Squat

Inner thighs

Place a barbell against your lower chest holding it in the crook of your arms. Cross your right forearm over your left forearm to help stabilize the bar. Keep your head up, back straight, and your heels on a 2x4 piece of wood about thirty inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and knees pointing outward. Return to starting position and exhale.

▲ Flat Footed Close Stance Dumbbell Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

▲ Flat Footed Medium Stance Dumbbell Squat to Bench

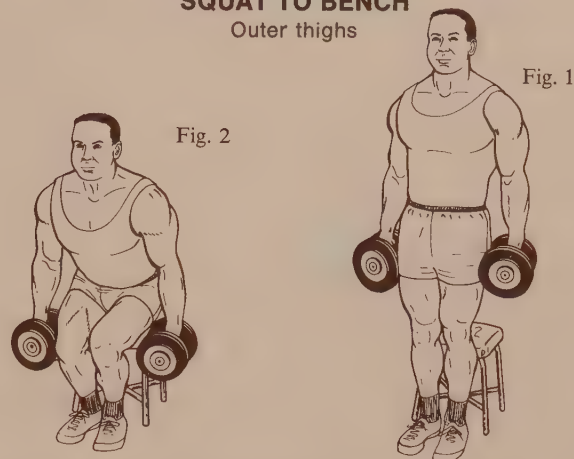
Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees slightly to the sides. Return to starting position and exhale.

■ Flat Footed Close Stance Dumbbell Squat

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and

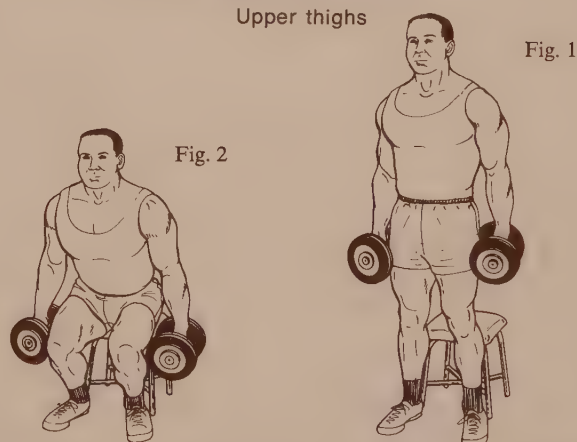
FLAT FOOTED CLOSE STANCE DUMBBELL SQUAT TO BENCH

Outer thighs



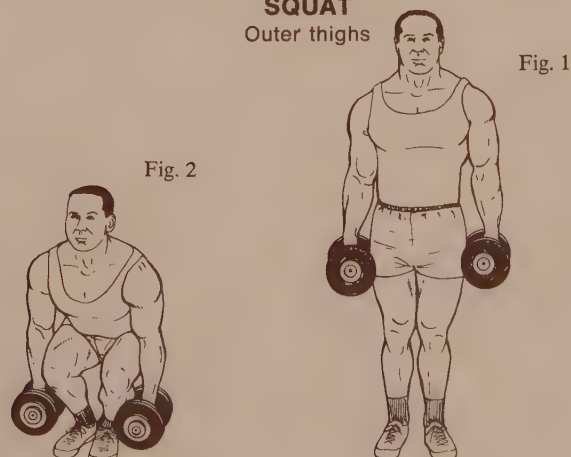
FLAT FOOTED MEDIUM STANCE DUMBBELL SQUAT TO BENCH

Upper thighs



FLAT FOOTED CLOSE STANCE DUMBBELL SQUAT

Outer thighs



FLAT FOOTED MEDIUM STANCE DUMBBELL SQUAT

Upper thighs

Fig. 1



Fig. 2



your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees close. Return to starting position and exhale.

■ Flat Footed Medium Stance Dumbbell Squat

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees slightly to the sides. Return to starting position and exhale.

FLAT FOOTED CLOSE STANCE DUMBBELL NONLOCK SQUAT

Outer thighs

Fig. 1



Fig. 2



■ Flat Footed Close Stance Dumbbell Nonlock Squat

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and your feet planted firmly on the floor about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight and knees close. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the dumbbell nonlock squat over again until the prescribed number of repetitions are completed.

■ Flat Footed Medium Stance Dumbbell Nonlock Squat

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the dumbbell nonlock squat over again until the prescribed number of repetitions are completed.

FLAT FOOTED MEDIUM STANCE DUMBBELL NONLOCK SQUAT

Upper thighs

Fig. 1



Fig. 2



▲ Heels Elevated Close Stance Dumbbell Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to

the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and place your heels on the 2x4 piece of wood about eight inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

▲ Heels Elevated Medium Stance Dumbbell Squat to Bench

Place a bench that is about sixteen inches high behind you and stand close enough to the bench so your heels are about even with the end of the bench closest to you. Put a 2x4 piece of wood on the floor where your heels are to be during the exercise. Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and place your heels on the 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your buttocks touch the bench. Do not take the tension off your thighs and totally sit on the bench. Your head should remain up, back straight and your knees slightly out to the sides. Return to starting position and exhale.

▲ Heels Elevated Close Stance Dumbbell Squat

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees close together. Return to starting position and exhale.

▲ Heels Elevated Medium Stance Dumbbell Squat

Upper thighs

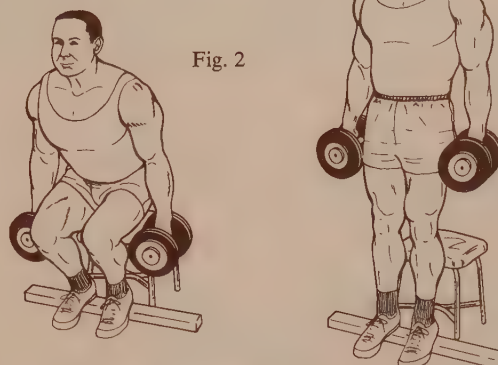
Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees out to the sides. Return to starting position and exhale.

HEELS ELEVATED CLOSE STANCE DUMBBELL SQUAT TO BENCH

Outer thighs

Fig. 1

Fig. 2

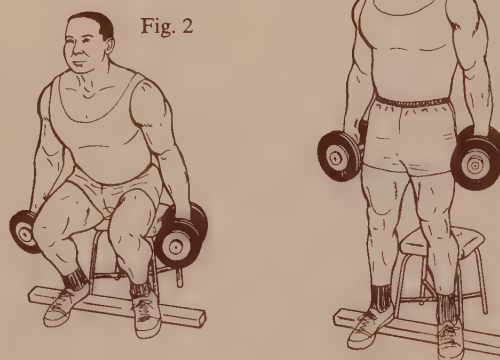


HEELS ELEVATED MEDIUM STANCE DUMBBELL SQUAT TO BENCH

Upper thighs

Fig. 1

Fig. 2

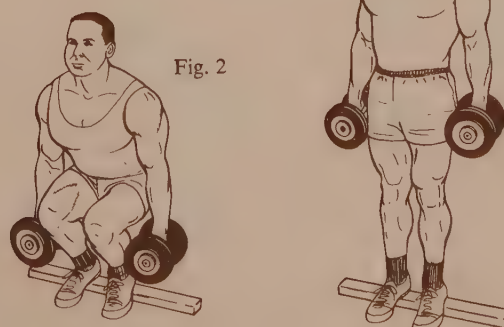


HEELS ELEVATED CLOSE STANCE DUMBBELL SQUAT

Outer thighs

Fig. 1

Fig. 2



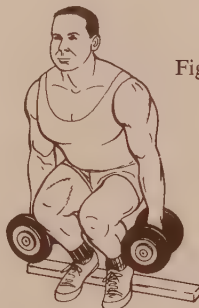
HEELS ELEVATED CLOSE STANCE DUMBBELL NONLOCK SQUAT

Outer thighs

Fig. 1



Fig. 2



▲ Heels Elevated Close Stance Dumbbell Nonlock Squat

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and your heels on a 2x4 piece of wood about eight inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees close together. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the dumbbell nonlock squat over again until the prescribed number of repetitions are completed.

HEELS ELEVATED MEDIUM STANCE DUMBBELL NONLOCK SQUAT

Upper thighs

Fig. 1



Fig. 2



▲ Heels Elevated Medium Stance Dumbbell Nonlock Squat

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight, and your heels on a 2x4 piece of wood about sixteen inches apart. Inhale and squat down until your upper thighs are parallel with the floor. Your head should remain up, back straight, and your knees slightly out to the sides. Return to starting position at the top and exhale but do not lock your legs out or take a short rest before starting the next repetition. Immediately start the dumbbell nonlock squat over again until the prescribed number of repetitions are completed.

DUMBBELL BREATHING SQUAT

Entire body

Fig. 1



Fig. 2



▲ Dumbbell Breathing Squat

Hold a dumbbell in each hand at arm's length to your sides palms facing in as shown in illustration #1. The squat position is shown at its proper angle in illustration #2. There should be a definite pause at the positions shown. Do not bounce up and down, but make a regular momentary pause at the top and bottom of the exercise. Special attention should be given to the breathing for this exercise. This is the KEY to the exercise. Keep your chest high and breathe deeply. Use a fairly light weight. It is permissible to do the squat with your feet flat on the floor or heels raised on a board. On the first five repetitions, take two full breaths before each squat, holding the second breath until you come back to standing position. On the second set of five repetitions, take three breaths on each repetition. On the third set, take four breaths each. Attempt to take full breaths and keep your chest high. Squat as you hold the last breath and exhale as you re-

turn to starting position. Do not place the dumbbell down until you have completed the required fifteen repetitions. A total of forty-five breaths will be taken in doing a set of fifteen repetitions.

▲ Barbell Breathing Squat

Start with a barbell on your shoulders as shown in illustration #1. The squat position is shown at its proper angle in illustration #2. There should be a definite pause at the positions shown. Do not bounce up and down, but make a regular momentary pause at the top and bottom. Special attention should be given to the breathing for this exercise. This is the KEY to the exercise. Keep your chest high and inhale deeply. Use a fairly light weight. It is permissible to do the squat with your feet flat on the floor or heels raised on a board. On the first five repetitions, take two full breaths before each squat, holding the second breath until you come back to the standing position. On the second set of five repetitions, take three breaths on each repetition. On the third set, take four breaths each. Attempt to take full breaths and keep your chest high. Squat as you hold the last breath and exhale as you return to starting position. Do not remove the barbell from your shoulders until you have completed the required fifteen repetitions. A total of forty-five breaths will be taken in doing a set of fifteen repetitions.

■ Close Stance Sissy Squat

Place a twenty-four inch strap about chest high around a piece of pipe which is away from a wall. Put your feet about three inches apart on each side of the pipe. Hold on to the strap with both hands and lay back until you are at arm's length supporting your body with your outstretched arms and the strap. Inhale and commence to squat down but do so by raising up on your toes and thrusting your hip forward and arching your back forward, squatting down in a semicircular motion until your thighs are parallel with the floor and to each side of the pipe. Keep your back in this arched position and knees in close. Return to starting position and exhale.

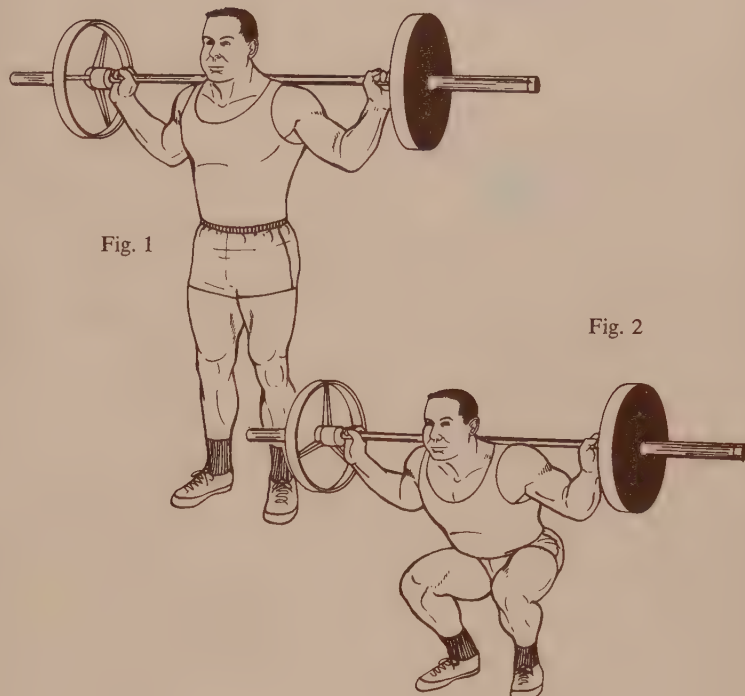
■ Medium Stance Sissy Squat

Upper thighs

Place a twenty-four inch strap about chest high around a piece of pipe which is away from a wall. Put your feet about six inches apart on each side of the pipe. Hold on to

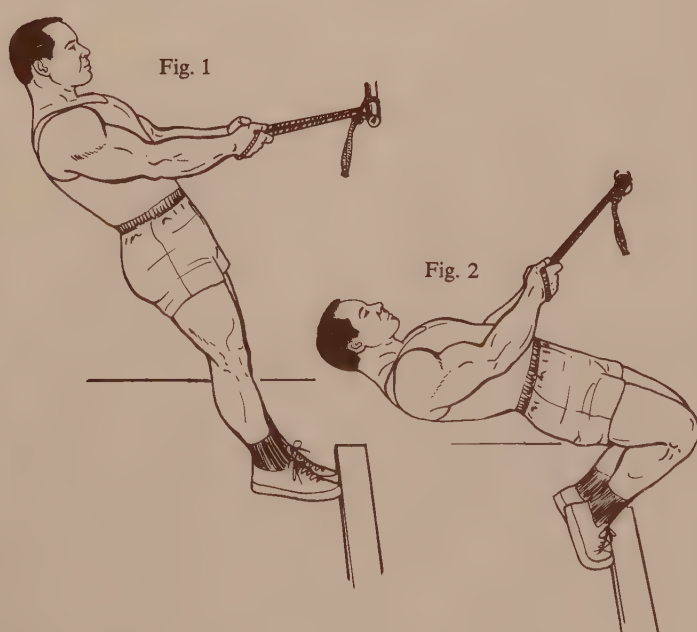
BARBELL BREATHING SQUAT

Entire body



CLOSE STANCE SISSY SQUAT

Outer thighs



WIDE STANCE SISSY SQUAT

Inner thighs



Fig. 1



Fig. 2

the strap with both hands and lay back until you are at arm's length supporting your body with your outstretched arms and the strap. Inhale and commence to squat down but do so by raising up on your toes and thrusting your hips forward and arching your back forward squatting down in a semicircular motion until your thighs are parallel with the floor and to each side of the pipe. Keep your back in this arched position and your knees slightly out to the sides. Return to starting position and exhale.

■ Wide Stance Sissy Squat

Place a twenty-four inch strap about chest high around a piece of pipe which is away from a wall. Put your feet about ten inches apart on each side of the pipe. Hold on to the strap with both hands and lay back until you are at arm's length supporting your body with your outstretched arms and the strap. Inhale and commence to squat down but do so by raising up on your toes and thrusting your hips forward and arching your back forward squatting down in a semicircular motion until your thighs are parallel with the floor and pointing outward. Keep your back arched. Return to starting position and exhale.

FREE HAND JUMP SQUAT

Thighs and calves



Fig. 1

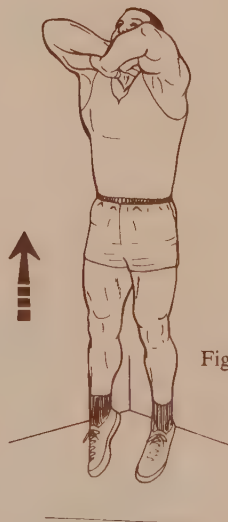


Fig. 2

▲ Free Hand Jump Squat

Stand erect with your arms crossed over your chest. Keep your head up, back straight and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel or lower with the floor. Your head should remain up, back straight and knees slightly out to the sides. Now, thrust yourself straight up as high in the air as possible by using your thighs like a pair of springs. Exhale as you reach the highest position. Do not rest but immediately inhale and lower yourself again until your upper thighs are parallel, or lower, and jump straight up again going from one repetition to another until the prescribed number is completed.

■ Dumbbell Jump Squat

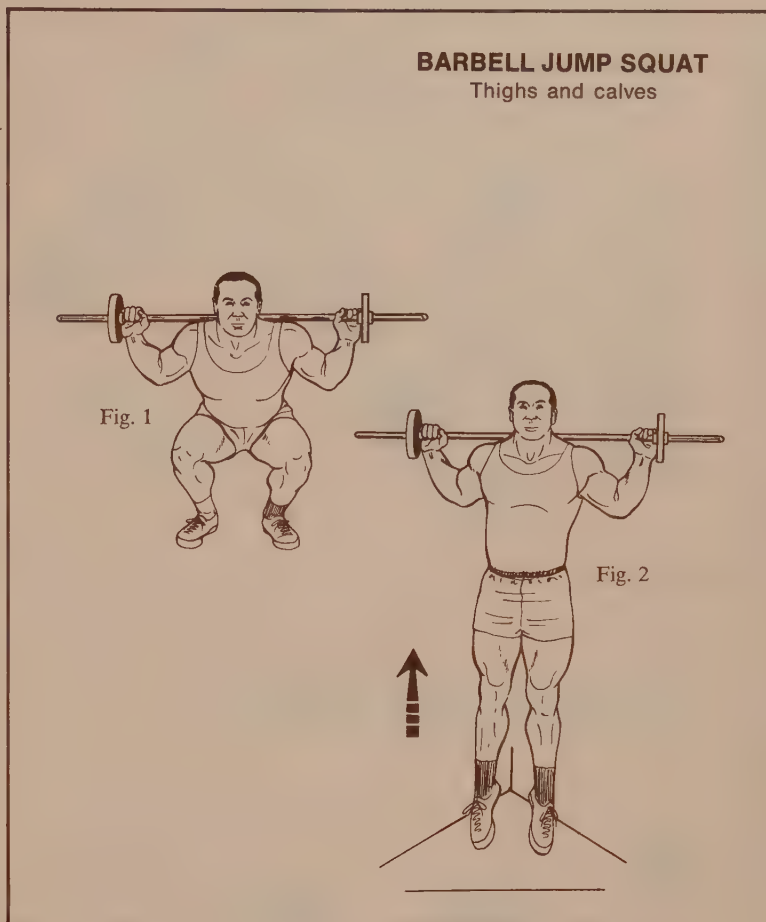
Thighs and calves

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel or lower with the floor. Your head should

remain up, back straight and knees slightly out to the sides. Now, thrust yourself straight up as high in the air as possible by using your thighs like a pair of springs. Exhale as you reach the highest position. Do not rest but immediately inhale and lower yourself again until your upper thighs are parallel, or lower, and jump straight up again going from one repetition to another until the prescribed number is completed.

■ Barbell Jump Squat

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up, back straight and your feet planted firmly on the floor about sixteen inches apart. Inhale and squat down until your upper thighs are parallel or lower with the floor. Your head should remain up, back straight and knees slightly out to the sides. Now, thrust yourself straight up as high in the air as possible by using your thighs like a pair of springs. Exhale as you reach the highest position. Do not rest but immediately inhale and lower yourself again until your upper thighs are parallel, or lower, and jump straight up again going from one repetition to another until the prescribed number is completed.



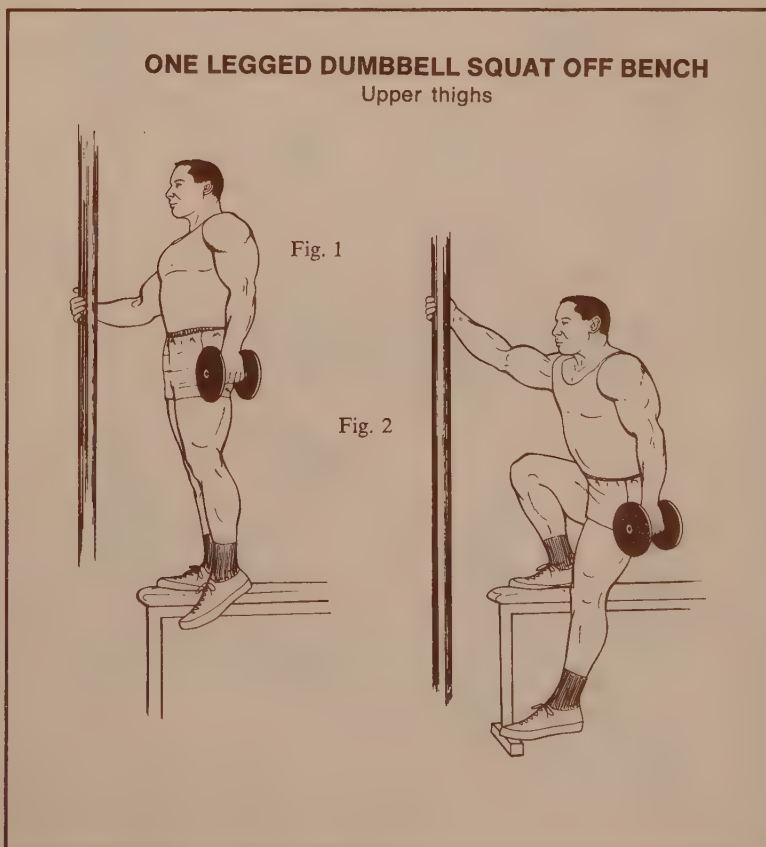
■ One Legged Dumbbell Squat Off Bench

Place the end of a bench up against a pipe. Stand on the bench nearly arm's length away from the pipe. Hold a dumbbell in your left hand at arm's length palms facing in. Grasp the pipe with your right hand about chest high. Step to the left side of the bench so your left leg is hanging vertical in mid-air. Inhale and squat down on your right leg until your right upper thigh is parallel with the floor and your left leg is hanging straight down. Keep your back straight and head up. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

■ One Legged Free Hand Squat Off Bench

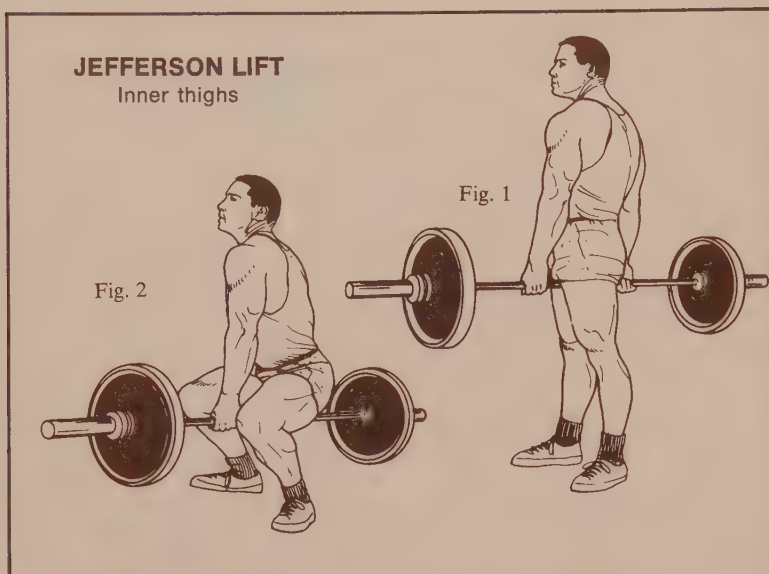
Upper thighs

Place the end of a bench against a pipe. Stand on the bench nearly arm's length away from the pipe. Grasp the pipe with your right hand about chest high. Step to the left side of the bench so your left leg is hanging vertical in mid-air. Inhale and squat down on your right leg until your



JEFFERSON LIFT

Inner thighs



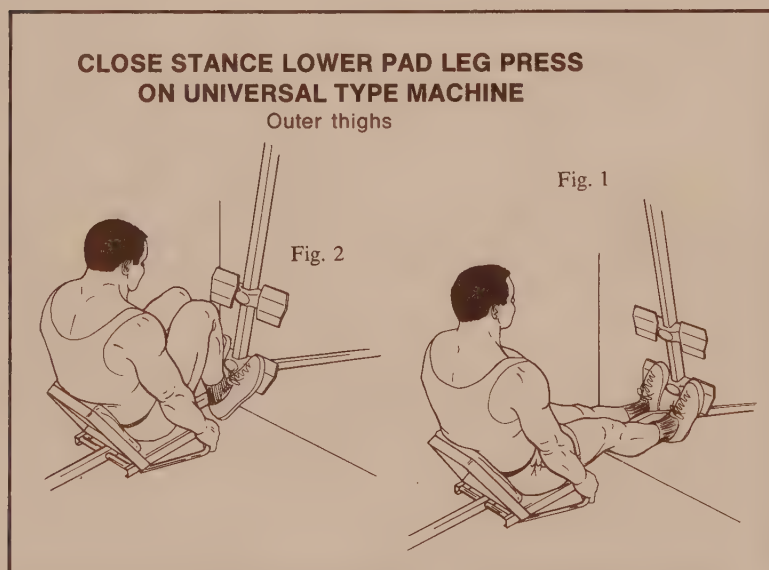
right upper thigh is parallel with the floor and your left leg is hanging straight down. Keep your back straight and head up. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

▲ Jefferson Lift

Place a barbell on the floor. Straddle the bar and bend down and grasp the front of the bar with your right hand, palms facing down. Grasp the rear of the bar with your left hand, palms facing down. Be sure your grip is even on the bar. Squat down until your upper thighs are parallel with the floor keeping your feet about twenty-four inches apart and planted firmly on the floor. Keep your back nearly vertical with the floor and your head up. Inhale and raise the bar upward until your legs are straight and knees lock. Keep the bar hanging at arm's length and your elbows locked. Do the lifting with your thighs and lower back. Return to starting position and exhale.

CLOSE STANCE LOWER PAD LEG PRESS ON UNIVERSAL TYPE MACHINE

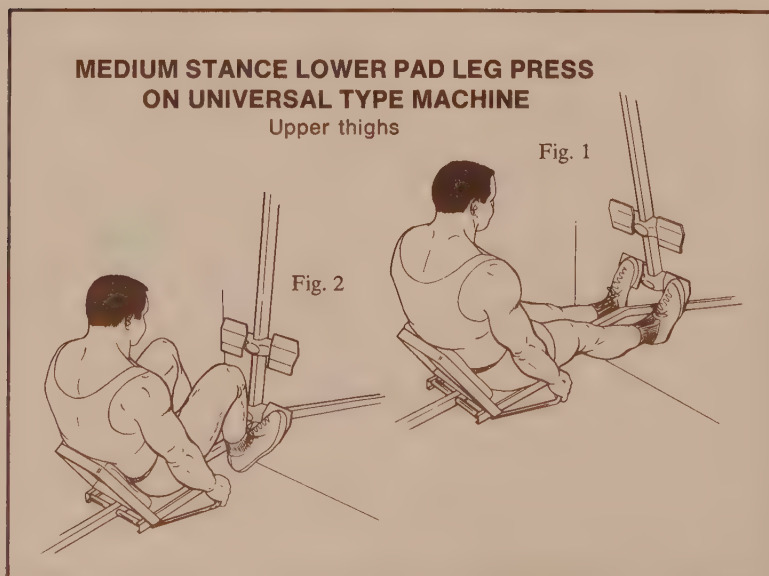
Outer thighs

**▲ Close Stance Lower Pad Leg Press on Universal Type Machine**

Before starting the exercise, adjust the seat adjustment on the machine so your upper thighs are nearly vertical with the floor in the contracted position. Now, sit down on the back supported chair and hold on to the hand rails under your buttocks. Place your feet on the two lower pads provided and press the weight stack out until your thighs are straight and knees lock. Inhale and let the weight stack down until it nearly touches the remaining plates. Keep your knees in close. Press the stack out again until your legs are straight and exhale.

MEDIUM STANCE LOWER PAD LEG PRESS ON UNIVERSAL TYPE MACHINE

Upper thighs

**▲ Medium Stance Lower Pad Leg Press on Universal Type Machine**

Before starting the exercise, adjust the seat adjustment on the machine so your upper thighs are nearly vertical with the floor in the contracted position. Now, sit down on the back supported chair and hold on to the hand rails under your buttocks. Place your feet on the two lower pads provided and press the weight stack out until your thighs are straight and knees lock. Inhale and let the weight stack down until it nearly touches the remaining plates. Keep your knees slightly out to the sides. Press the stack out again until your legs are straight and exhale.

▲ Wide Stance Lower Leg Press on Universal Type Machine

Before starting the exercise, adjust the seat adjustment on the machine so your upper thighs are nearly vertical with the floor in the contracted position. Now, sit down on the back supported chair and hold on to the hand rails under your buttocks. Place your feet on the two lower pads provided and press the weight stack out until your thighs are straight and knees lock. Inhale and let the weight stack down until it nearly touches the remaining plates. Keep your knees pointing outward. Press the stack out again until your legs are straight and exhale.

▲ Close Stance Top Pad Leg Press on Universal Type Machine

Before starting the exercise, adjust the seat adjustment on the machine so your upper thighs are nearly vertical with the floor in the contracted position. Now, sit down on the back supported chair and hold on to the hand rails under your buttocks. Place your feet on the two top pads provided and press the weight stack out until your thighs are straight and knees lock. Inhale and let the weight stack down until it nearly touches the remaining plates. Keep your knees in close. Press the stack out again until your legs are straight and exhale.

▲ Medium Stance Top Pad Leg Press on Universal Type Machine

Before starting the exercise, adjust the seat adjustment on the machine so your upper thighs are nearly vertical with the floor in the contracted position. Now, sit down on the back supported chair and hold on to the hand rails under your buttocks. Place your feet on the two top pads provided and press the weight stack out until your thighs are straight and knees lock. Inhale and let the weight stack down until it nearly touches the remaining plates. Keep your knees slightly out to the sides. Press the stack out again until your legs are straight and exhale.

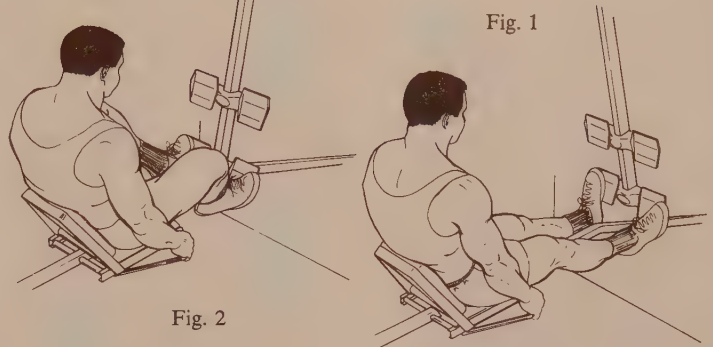
▲ Wide Stance Top Pad Leg Press on Universal Type Machine

Inner thighs

Before starting the exercise, adjust the seat adjustment on the machine so your upper thighs are nearly vertical with the floor in the contracted position. Now, sit down on the back supported chair and hold on to the

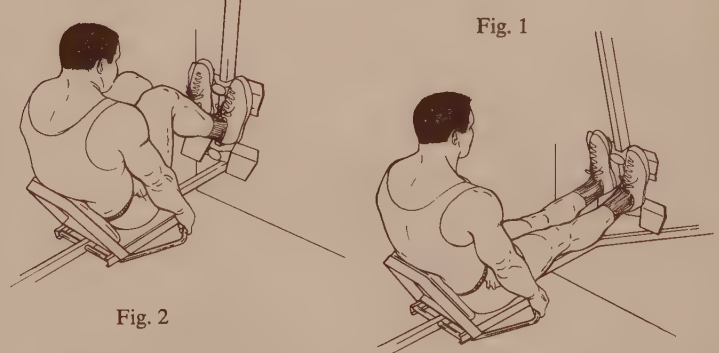
WIDE STANCE LOWER PAD LEG PRESS ON UNIVERSAL TYPE MACHINE

Inner thighs



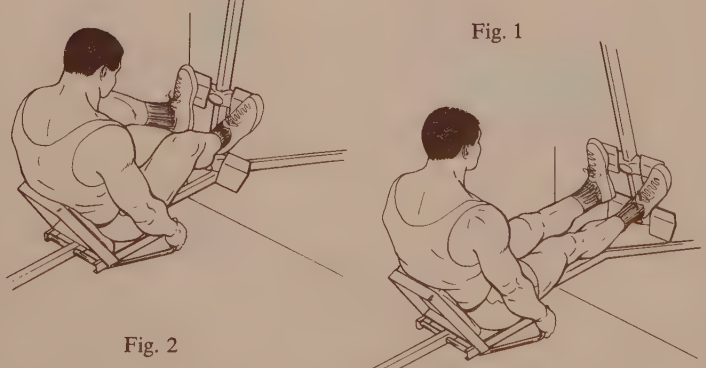
CLOSE STANCE TOP PAD LEG PRESS ON UNIVERSAL TYPE MACHINE

Outer thighs



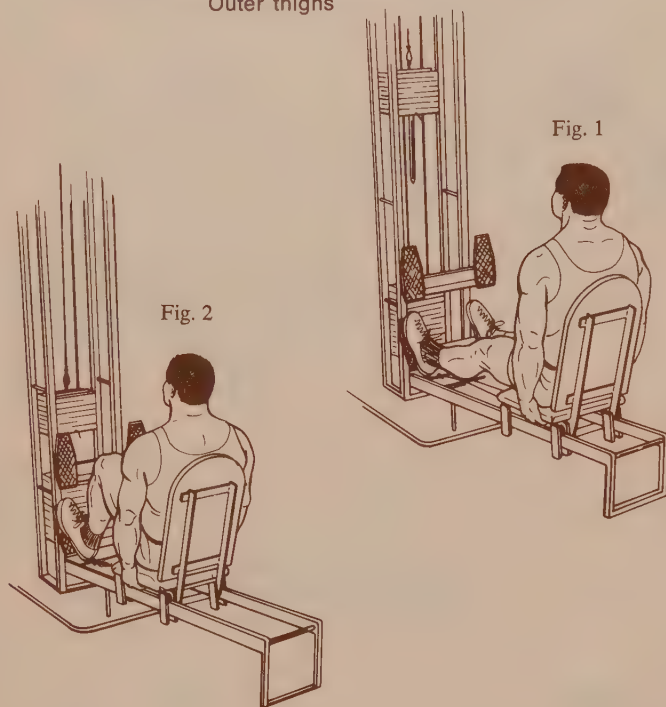
MEDIUM STANCE TOP PAD LEG PRESS ON UNIVERSAL TYPE MACHINE

Upper thighs



CLOSE STANCE LOWER PAD LEG PRESS ON SLED MACHINE

Outer thighs



hand rails under your buttocks. Place your feet on the two top pads provided and press the weight stack out until your thighs are straight and knees lock. Inhale and let the weight stack down until it nearly touches the remaining plates. Keep your knees pointing outward. Press the stack out again until your legs are straight and exhale.

▲ Close Stance Lower Pad Leg Press on Sled Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place your feet on the two lower pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Inhale and bend your legs towards your upper body until the weight stack nearly touches the remaining plates and your upper thighs are against your torso. Keep your knees in close. Press the stack out again until your legs are straight and exhale.

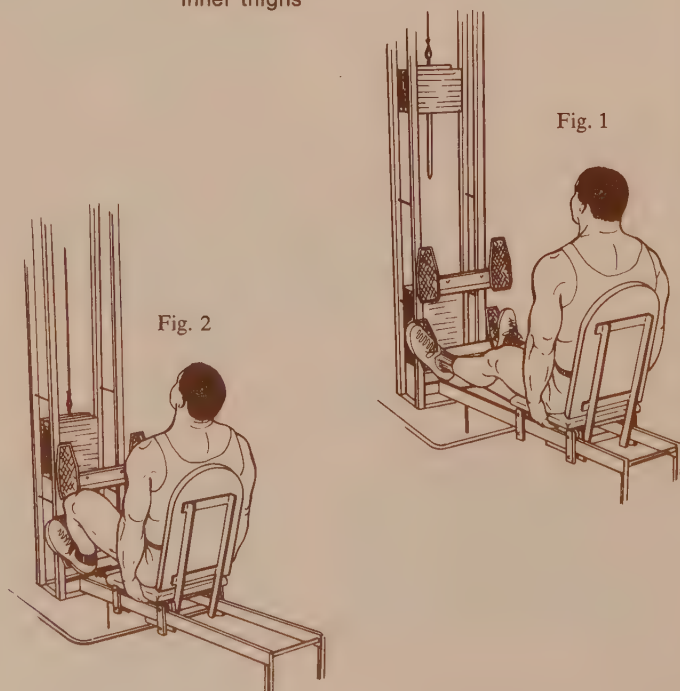
▲ Medium Stance Lower Pad Leg Press on Sled Machine

Upper thighs

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place your feet on the two lower pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Inhale and bend your legs towards your upper body until the weight stack nearly touches the remaining plates and your upper thighs are against your outer torso. Keep your knees slightly out to the sides. Press the stack out again until your legs are straight and exhale.

WIDE STANCE LOWER PAD LEG PRESS ON SLED MACHINE

Inner thighs



▲ Wide Stance Lower Pad Leg Press on Sled Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place your feet on the two lower pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Inhale and bend your legs towards your upper body until the weight stack nearly touches the remaining plates and your upper thighs are to the sides of your torso. Keep your knees pointing outward. Press the stack out again until your legs are straight and exhale.

▲ Close Stance Top Pad Leg Press on Sled Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place your feet on the two top pads provided and press the weight stack out as the seat moves backward until your legs are straight and the knees lock. Inhale and bend your legs towards your upper body until the weight stack nearly touches the remaining plates and your upper thighs are against your torso. Keep your knees in close. Press the stack out again until your legs are straight and exhale.

▲ Medium Stance Top Pad Leg Press on Sled Machine

Upper thighs

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place your feet on the two top pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Inhale and bend your legs towards your upper body until the weight stack nearly touches the remaining plates and your upper thighs are against your outer torso. Keep your knees slightly out to the sides. Press the stack out again until your legs are straight and exhale.

▲ Wide Stance Top Pad Leg Press on Sled Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place your feet on the two top pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Inhale and bend your legs toward your upper body until the weight stack nearly touches the remaining plates and your upper thighs are to the sides of your torso. Keep your knees pointing outward. Press the stack out again until your legs are straight and exhale.

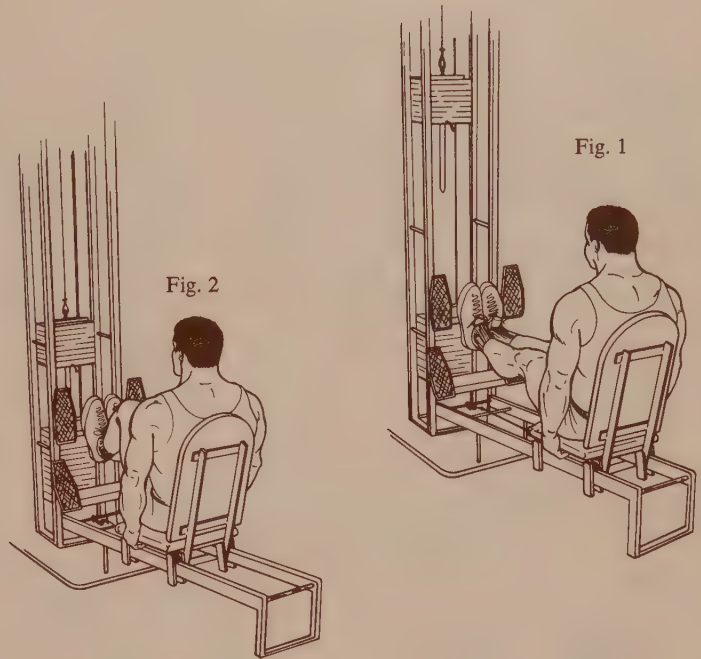
▲ Close Stance Leg Press on Moon Bench Leg Press Machine

Outer thighs

Sit on the seat of a Moon Bench leg press machine and slide your buttocks to the front of the bench. Place your hands under your buttocks and hold on to the end of the bench for support. Place your feet firmly on the foot pad about six inches apart. Inhale and press the weight stack up until your legs are straight and knees lock. Keep your knees in close during the exercise. Return to starting position and exhale.

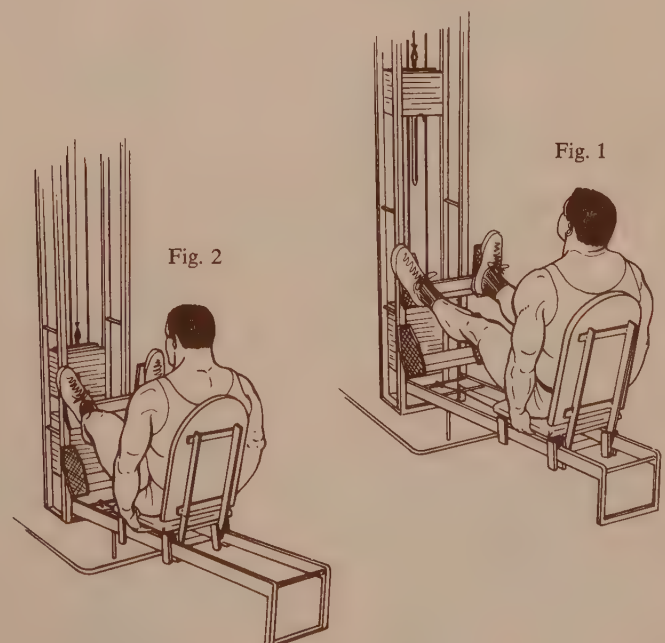
CLOSE STANCE TOP PAD LEG PRESS ON SLED MACHINE

Outer thighs



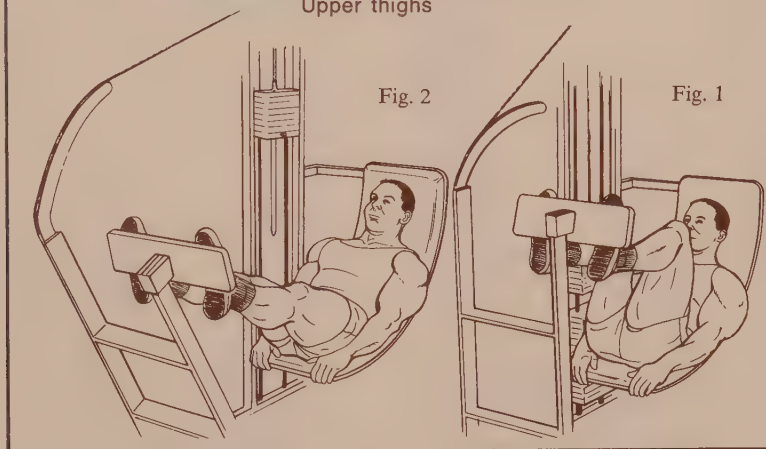
WIDE STANCE TOP PAD LEG PRESS ON SLED MACHINE

Inner thighs



MEDIUM STANCE LEG PRESS ON MOON BENCH LEG PRESS MACHINE

Upper thighs



▲ Medium Stance Leg Press on Moon Bench Leg Press Machine

Sit on the seat of a Moon Bench leg press machine and slide your buttocks to the front of the bench. Place your hands under your buttocks and hold on to the end of the bench for support. Place your feet firmly on the foot pad about twelve inches apart. Inhale and press the weight stack up until your legs are straight and knees lock. Keep your knees slightly out to the sides during the exercise. Return to starting position and exhale.

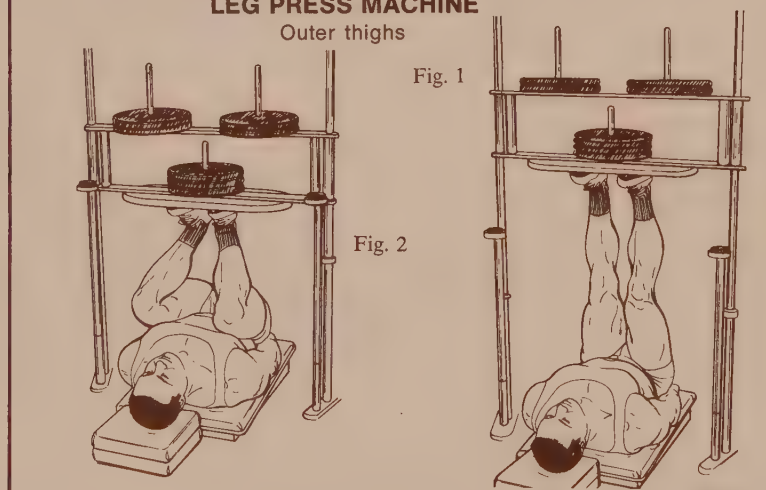
▲ Wide Stance Leg Press on Moon Bench Leg Press Machine

Inner thighs

Sit on the seat of a Moon Bench leg press machine and slide your buttocks to the front of the bench. Place your hands under your buttocks and hold on to the end of the bench for support. Place your feet firmly on the foot pad about sixteen inches apart. Inhale and press the weight stack up until your legs are straight and knees lock. Keep your knees pointing outward during the exercise. Return to starting position and exhale.

CLOSE STANCE LEG PRESS ON WALL TYPE LEG PRESS MACHINE

Outer thighs

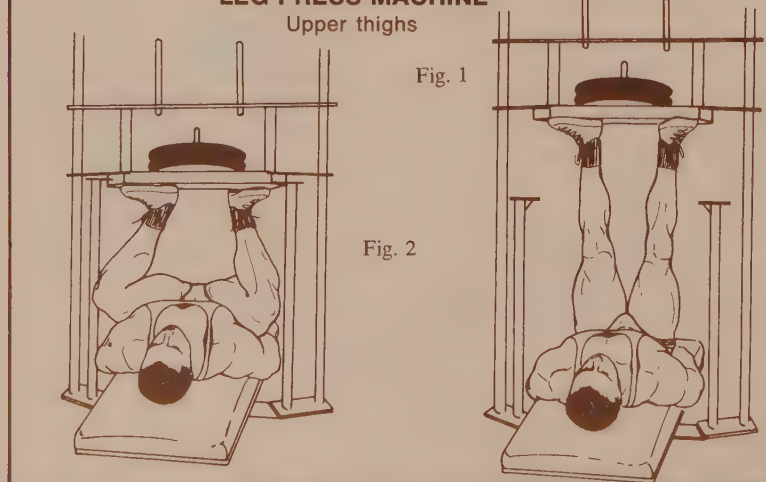


▲ Close Stance Leg Press on Wall Type Leg Machine

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your hips are directly under the foot pad of the machine. Position your feet on the foot pad about six inches apart and keep your whole foot planted firmly to the pad. Press the weight rack upward until your legs are straight and knees lock. Release the safety stops with both hands and then place your hands under your buttocks palms facing down. Inhale and bend your legs to lower the weight rack until your upper thighs are just touching your torso. Keep your knees in close. Keep your hips down and do not cause a rotating motion with your lower back. Return to starting position and exhale.

MEDIUM STANCE LEG PRESS ON WALL TYPE LEG PRESS MACHINE

Upper thighs



▲ Medium Stance Leg Press on Wall Type Leg Press Machine

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your hips are directly under the foot pad of the machine. Position your feet on the foot pad about twelve inches apart and keep the whole foot plant-

ed firmly on the pad. Press the weight rack upward until your legs are straight and knees lock. Release the safety stops with both hands and then place your hands under your buttocks palms facing down. Inhale and bend your legs to lower the weight rack until your upper thighs are just touching the outer sides of your torso. Keep your knees slightly out to the sides. Keep your hips down and do not cause a rotating motion with your lower back. Return to starting position and exhale.

▲ Wide Stance Leg Press on Wall Type Leg Press Machine

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your hips are directly under the foot pad of the machine. Position your feet on the foot pad about sixteen inches apart and keep the whole foot planted firmly on the pad. Press the weight rack upward until your legs are straight and knees lock. Release the safety stops with both hands and then place your hands under your buttocks palms facing down. Inhale and bend your legs to lower the weight rack until your upper thighs are away from the outer sides of your torso. Keep your knees pointing outward. Keep your hips down and do not cause a rotating motion with your lower back. Return to starting position and exhale.

▲ Close Stance Half Squat on Thrust Machine

Step face forward into the machine and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and feet about six inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are half way of being parallel with the machine. Keep your head up, back straight and knees close together. Return to starting position and exhale. Your heels may raise up slightly at the lowest point of this exercise. This is not considered improper.

▲ Medium Stance Half Squat on Thrust Machine

Upper thighs

Step face forward into the machine and place your shoulders on the pads provided. Plant your feet on the slanted foot platform

WIDE STANCE LEG PRESS ON WALL TYPE LEG PRESS MACHINE

Inner thighs

Fig. 1



Fig. 2



CLOSE STANCE HALF SQUAT ON THRUST MACHINE

Outer thighs

Fig. 1

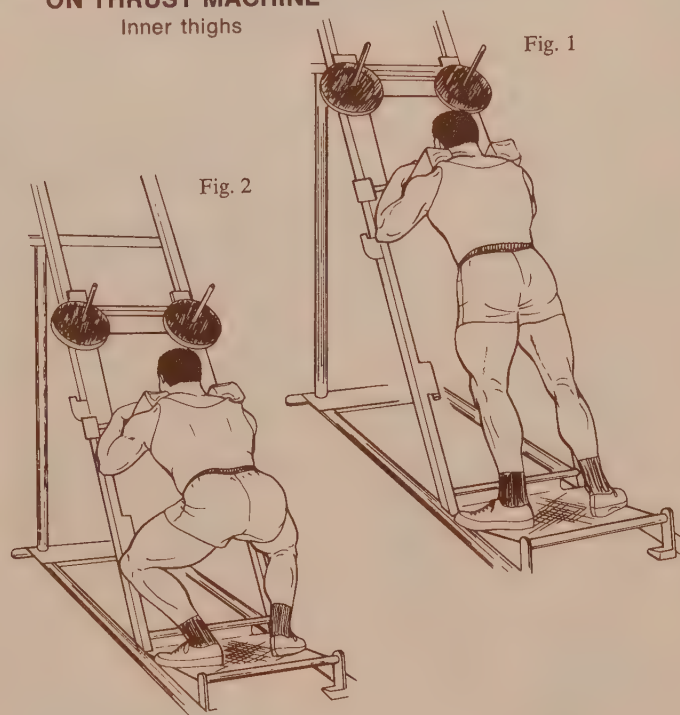


Fig. 2



WIDE STANCE HALF SQUAT ON THRUST MACHINE

Inner thighs



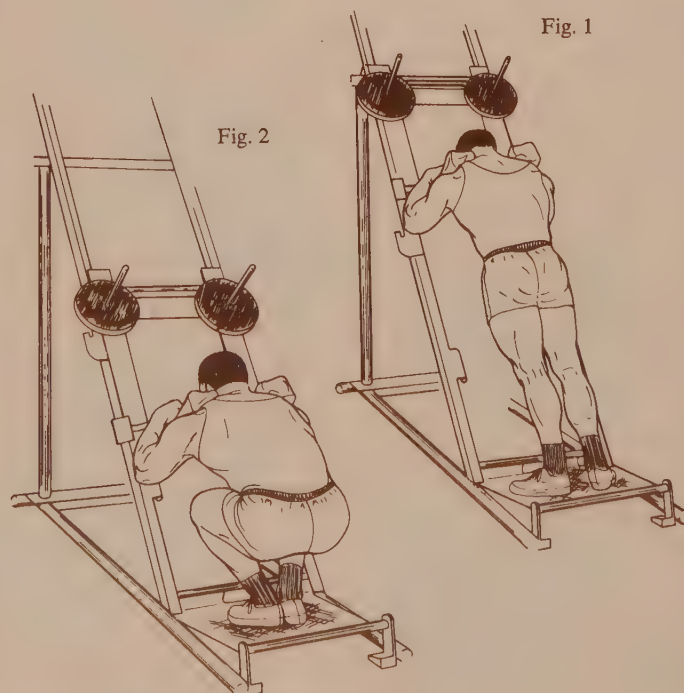
and stand erect with your head up, back straight and feet about twelve inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are half way of being parallel with the machine. Keep your head up, back straight and knees slightly out to the sides. Return to starting position and exhale. Your heels may raise up slightly at the lowest point of this exercise. This is not considered improper.

▲ Wide Stance Half Squat on Thrust Machine

Step face forward into the machine and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and feet about sixteen inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are half way of being parallel with the machine. Keep your head up, back straight and knees pointing outward. Return to starting position and exhale. Your heels may raise up slightly at the lowest point of this exercise. This is not considered improper.

CLOSE STANCE SQUAT ON THRUST MACHINE

Outer thighs



▲ Close Stance Squat on Thrust Machine

Step face forward into the machine and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and feet about six inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are parallel with the machine. Keep your head up, back straight and knees close together. Return to starting position and exhale. It is not possible to keep your heels on the slanted foot platform in the low position of this exercise. You will have to raise up on the balls of your feet. As you return to the top position your whole foot will again be planted firmly on the platform.

▲ Wide Stance Squat on Thrust Machine

Step face forward into the machine and place your shoulders on the pad provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and feet about sixteen inches apart. Release the safety stops with both hands and use them as hand supports during the

exercise. Inhale and squat down until your upper thighs are parallel with the machine. Keep your head up, back straight and knees pointing outward. Return to starting position and exhale. It is not possible to keep your heels on the slanted foot platform in the low position of this exercise. You will have to raise up on the balls of your feet. As you return to the top position your whole foot will again be planted firmly on the platform.

▲ Medium Stance Squat on Thrust Machine

Upper thighs

Step face forward into the machine and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and feet about twelve inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are parallel with the machine. Keep your head up, back straight and knees slightly out to the sides. Return to starting position and exhale. It is not possible to keep your heels on the slanted foot platform in the low position of this exercise. You will have to raise up on the balls of your feet. As you return to the top position your foot will again be planted firmly on the platform.

▲ Close Stance Squat on Ram Thrust Machine

Stand face forward on the platform of the ram thrust. Squat down and place your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up, and feet planted firmly on the platform about six inches apart. Inhale and squat down until your upper thighs are just above parallel with the angle of your body. Keep your head up, back straight and knees in close. Return to starting position and exhale.

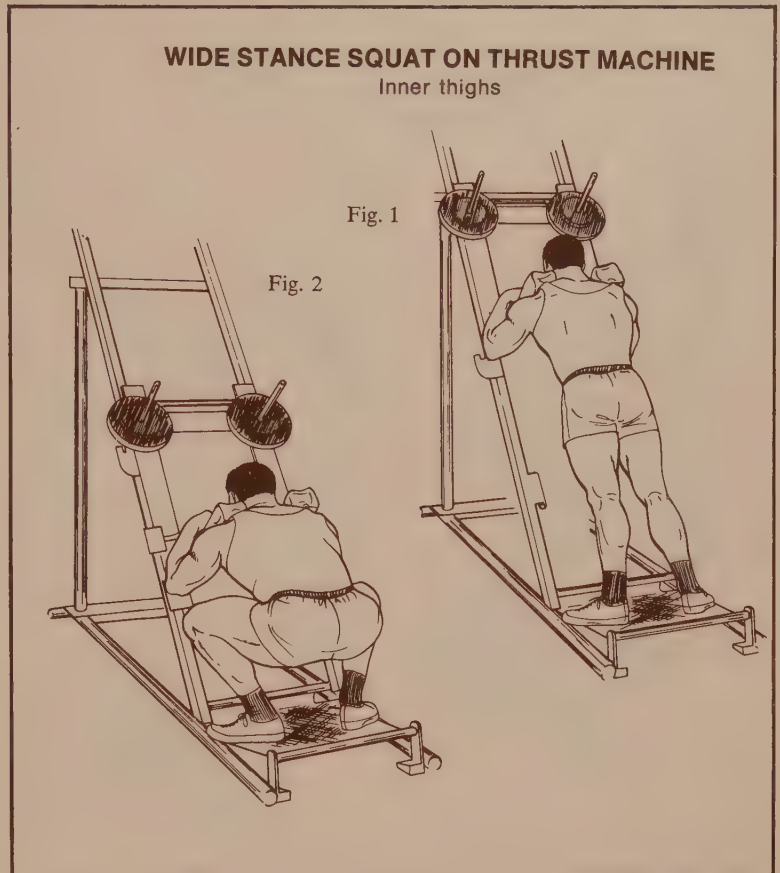
▲ Medium Stance Squat on Ram Thrust Machine

Upper thighs

Stand face forward on the platform of the ram thrust. Squat down and place your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform about twelve inches apart. Inhale and squat down until your upper thighs are just above parallel with the angle of your body. Keep your head up, back straight and knees slightly out to the sides. Return to starting position and exhale.

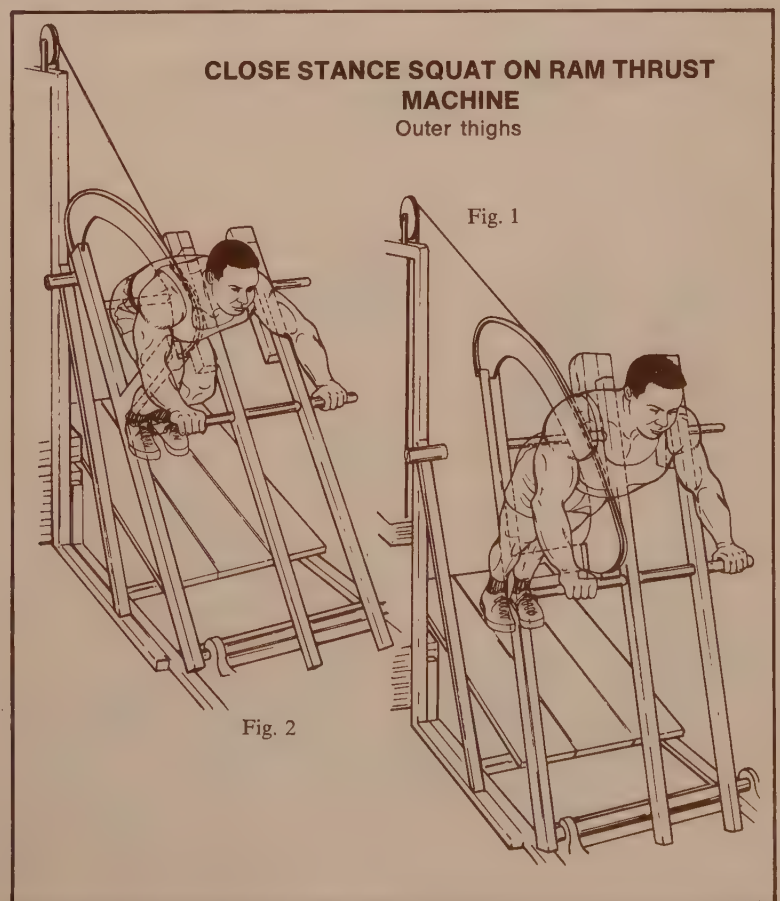
WIDE STANCE SQUAT ON THRUST MACHINE

Inner thighs



CLOSE STANCE SQUAT ON RAM THRUST MACHINE

Outer thighs



WIDE STANCE SQUAT ON RAM THRUST MACHINE

Inner thighs

Fig. 2



Fig. 1



▲ Wide Stance Squat on Ram Thrust Machine

Stand face forward on the platform of the ram thrust. Squat down and place your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform about sixteen inches apart. Inhale and squat down until your upper thighs are just above parallel with the angle of your body. Keep your head up, back straight and knees pointing outward. Return to starting position and exhale.

▲ Close Stance Hack Squat on Ram Thrust Machine

Outer thighs

Stand facing away on the platform of the ram thrust. Squat down and lay back into the machine placing your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform about six inches apart. Inhale and squat down until your upper thighs are just above parallel with the angle of your body. Keep your head up, back straight and knees in close. Return to starting position and exhale.

MEDIUM STANCE HACK SQUAT ON RAM THRUST MACHINE

Upper thighs

Fig. 2



Fig. 1



▲ Wide Stance Hack Squat on Ram Thrust Machine

Inner thighs

Stand facing away on the platform of the ram thrust. Squat down and lay back into the machine placing your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up, and feet planted firmly on the platform about sixteen inches apart. Inhale and squat down until your upper thighs are just above parallel with the angle of your body. Keep your head up, back straight and knees pointing outward. Return to starting position and exhale.

▲ Medium Stance Hack Squat on Ram Thrust Machine

Stand facing away on the platform of the ram thrust. Squat down and lay back into the machine placing your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform about twelve inches apart. Inhale and squat down until your upper thighs are just above parallel with the angle of your body. Keep your head up, back straight and knees slightly out to the sides. Return to starting position and exhale.

▲ Close Stance Half Hack Squat on Thrust Machine

Step back into the machine facing away and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and your feet about six inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are half way of being parallel with the machine. Keep your head up, back straight and knees close together. Return to starting position and exhale.

▲ Medium Stance Half Hack Squat on Thrust Machine

Step back into the machine facing away and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and your feet about twelve inches apart. Release the safety stops with both hands to use them as hand supports during the exercise. Inhale and squat down until your upper thighs are half way of being parallel with the machine. Keep your head up, back straight and knees slightly out to the sides. Return to starting position and exhale.

▲ Wide Stance Half Hack Squat on Thrust Machine

Upper thighs

Step back into the machine facing away and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and your feet about sixteen inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are half way of being parallel with the machine. Keep your head up, back straight and knees pointing outward. Return to starting position and exhale.

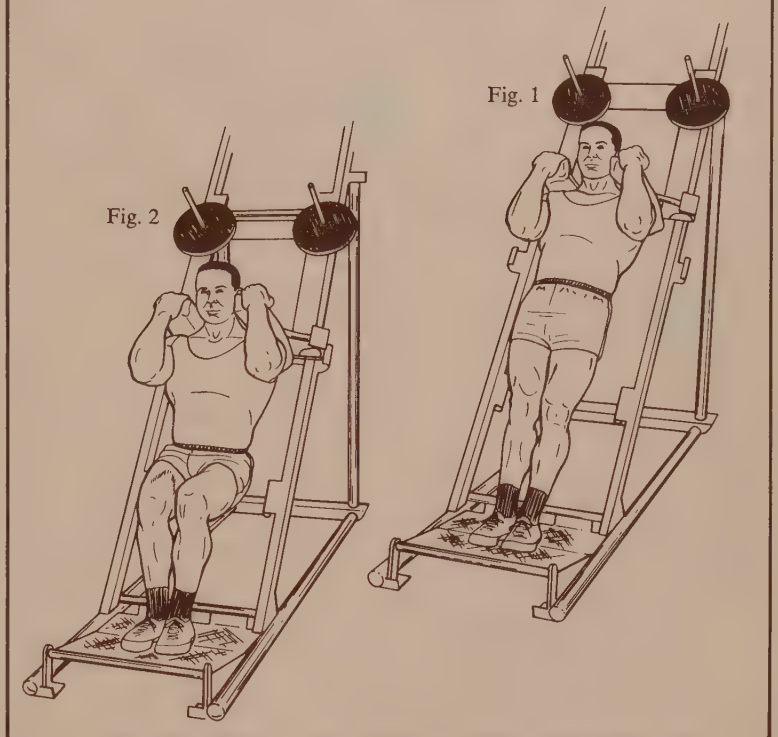
▲ Wide Stance Hack Squat on Thrust Machine

Inner thighs

Step back into the machine facing away and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and your feet about sixteen inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are parallel with the

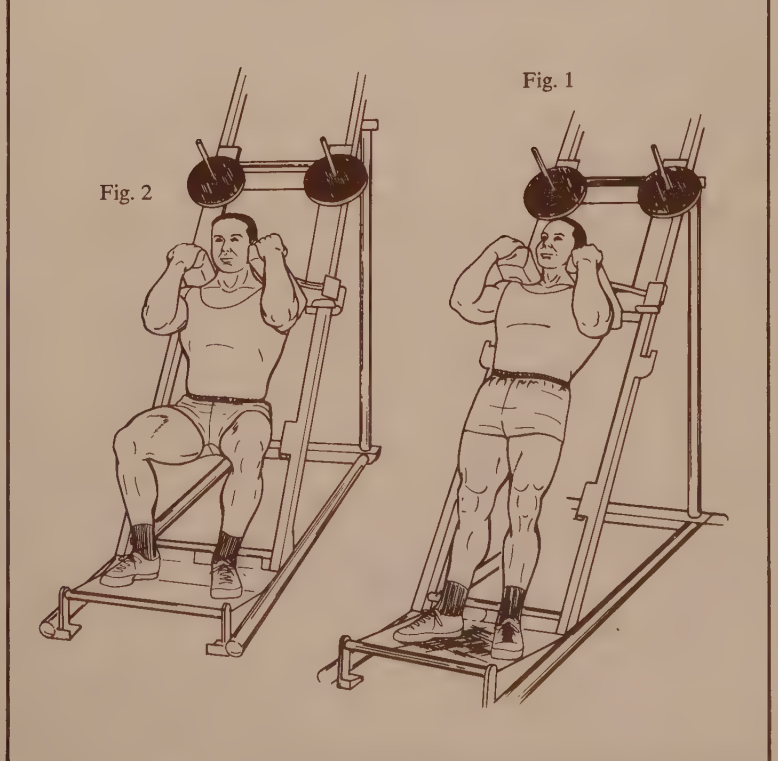
CLOSE STANCE HALF HACK SQUAT ON THRUST MACHINE

Outer thighs



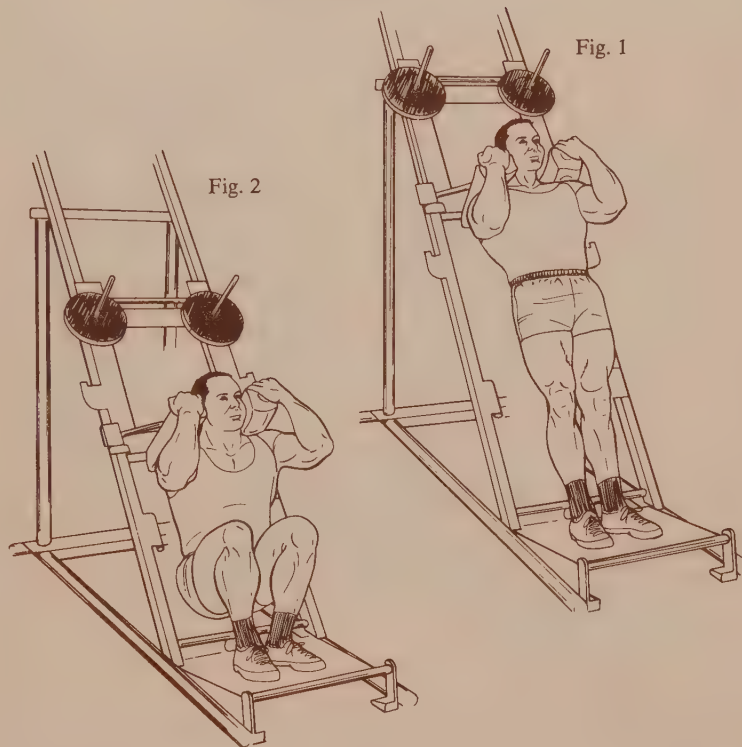
MEDIUM STANCE HALF HACK SQUAT ON THRUST MACHINE

Inner thighs



CLOSE STANCE HACK SQUAT ON THRUST MACHINE

Outer thighs



machine. Keep your head up, back straight and knees pointing outward. Return to starting position and exhale.

▲ Close Stance Hack Squat on Thrust Machine

Step back into the machine facing away and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and your feet about six inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are parallel with the machine. Keep your head up, back straight and knees close together. Return to starting position and exhale.

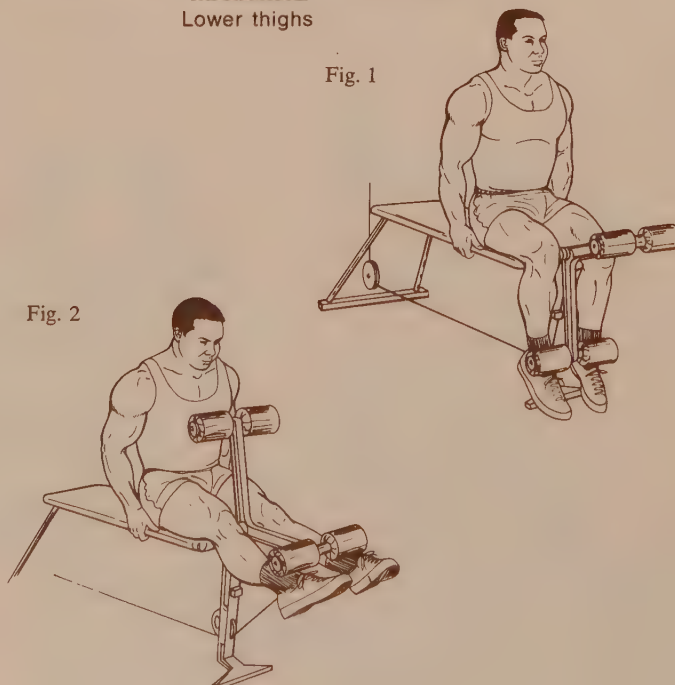
▲ Medium Stance Hack Squat on Thrust Machine

Upper thighs

Step back into the machine facing away and place your shoulders on the pads provided. Plant your feet on the slanted foot platform and stand erect with your head up, back straight and your feet about twelve inches apart. Release the safety stops with both hands and use them as hand supports during the exercise. Inhale and squat down until your upper thighs are parallel with the machine. Keep your head up, back straight and knees slightly out to the sides. Return to starting position and exhale.

THIGH EXTENSION ON LEG EXTENSION MACHINE

Lower thighs



▲ Thigh Extension on Leg Extension Machine

Sit at the end of a leg extension machine placing the top part of your ankles and feet under the lower foot pads. Back up far enough on the seat to keep the end of the seat against the rear of your knees. Hold on to the seat with both hands just behind your buttocks. Point your toes slightly downward. Inhale and raise the weight stack until your legs are parallel with the floor. Return to starting position and exhale. Keep your upper body in a fixed position during the exercise.

▲ Assisted Thigh Extension

Lower thighs

Sit at the end of a tall bench with your legs bent at the knees keeping your lower legs vertical with the floor. Have your training partner kneel in front of you and place his hands on your ankles. Inhale and raise your legs until they are parallel with the floor. Return to starting position and exhale. Your partner will apply resistance for the exer-

cise by resisting you as you curl your legs up and then you will resist him as he forces your legs back to starting position.

▲ One at a Time Assisted Thigh Extension

Sit at the end of a tall bench with your legs bent at the knees keeping your lower legs vertical with the floor. Have your training partner kneel in front of you and place his hands on your right ankle. Inhale and curl your right leg up until it is parallel with the floor. Return to starting position and exhale. Your partner will apply resistance for the exercise by resisting you as you curl your right leg up and then you will resist him as he forces your right leg down to starting position. Do the prescribed number of repetitions on the right side and then change positions to the left side, repeating the same number of repetitions.

▲ Low Wall Pulley, or Iron Boot, Thigh Extension

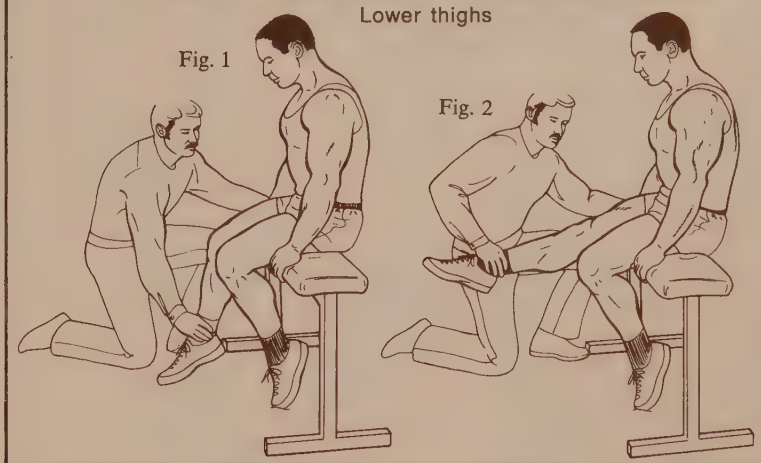
Place a fairly tall flat bench sideways in front of a low wall pulley machine. Keep the bench far enough from the machine to be able to raise the selected weights off the weight stacks after you have attached ankle straps to both ankles and have hooked the ankle straps to the lower pulley cables and sit on the bench facing away from the machine having your buttocks and upper legs on the bench with your lower legs vertical with the floor. (The pulley cables will run under the bench.) Inhale and raise both lower legs until your legs are parallel with the floor and your knees locked. Return to starting position and exhale. Iron boots may be used if a pulley cable is not available.

▲ One at a Time Thigh Extension on Leg Extension Machine

Sit on the right end of a leg extension machine placing the top part of your left ankle and foot under the lower right foot pad. Place your right leg on the floor for support. Back up far enough on the seat to keep the end of the seat against the rear of your knee. Hold on to the seat with your hand just behind your buttocks. Point your left toe slightly downward. Inhale and raise the weight stack until your left leg is parallel with the floor. Return to starting position and exhale. Keep your upper body in a fixed position during the exercise. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

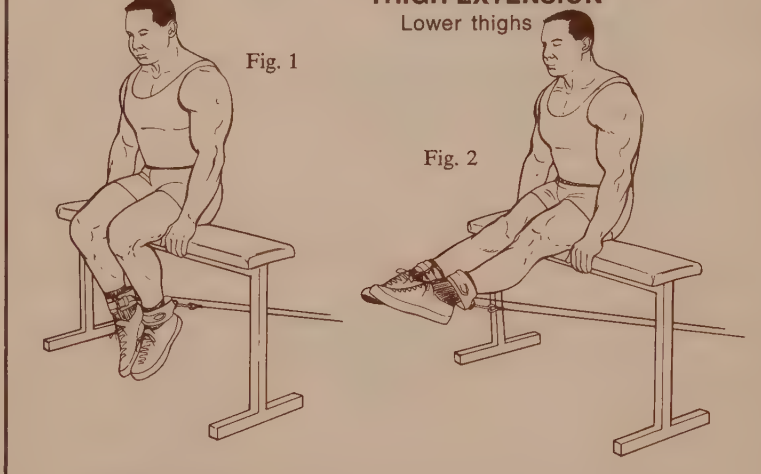
ONE AT A TIME ASSISTED THIGH EXTENSION

Lower thighs



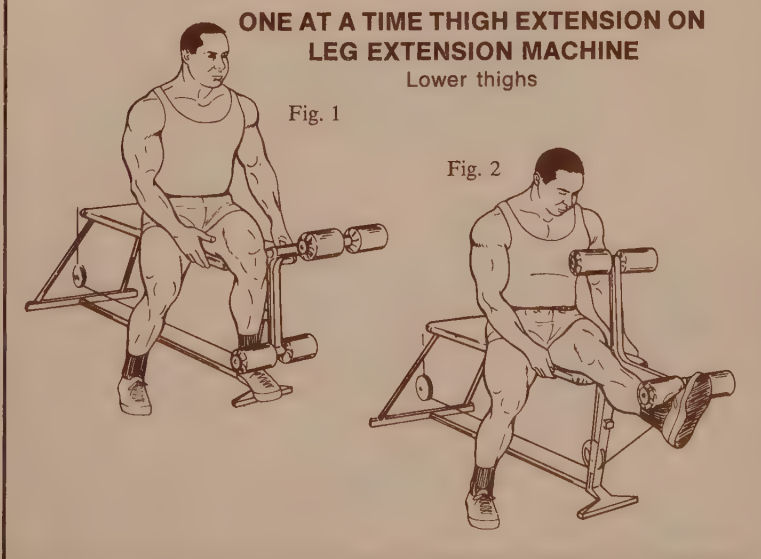
LOW WALL PULLEY, OR IRON BOOT, THIGH EXTENSION

Lower thighs



ONE AT A TIME THIGH EXTENSION ON LEG EXTENSION MACHINE

Lower thighs

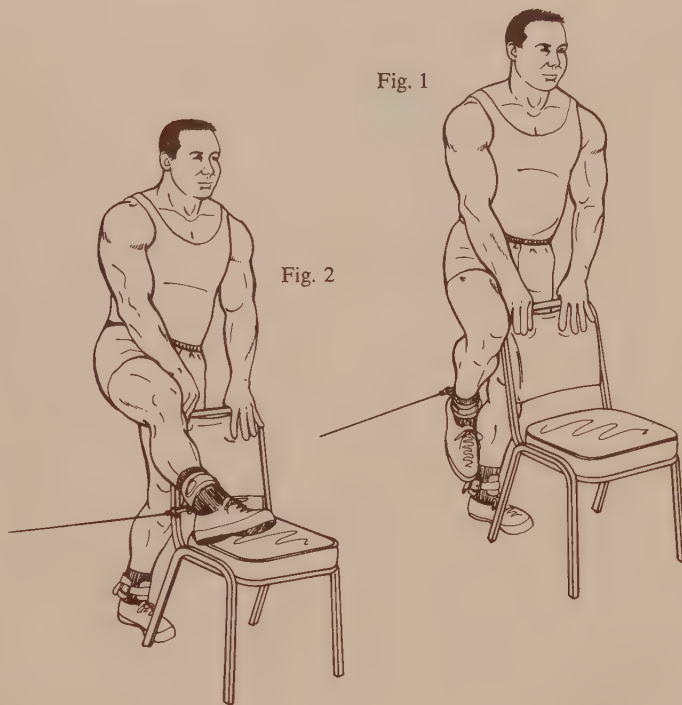


STANDING ONE LEGGED LOW WALL PULLEY, OR IRON BOOT, THIGH EXTENSION

Lower thighs

Fig. 1

Fig. 2



▲ Standing One Legged Low Wall Pulley, or Iron Boot, Thigh Extension

Place an ankle strap on both of your ankles and hook the right ankle strap to the right lower pulley cable. Stand facing away from the machine and far enough to be able to raise the selected weight off the weight stack after you bring your right upper thigh parallel with the floor and your lower right leg vertical with the floor. You must use a chair or some object for balance at this point. Inhale and raise your right lower leg until your leg is parallel with the floor and your knee locks. Return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change to the left leg repeating the same number of repetitions. An iron boot may be used if a pulley cable is not available.

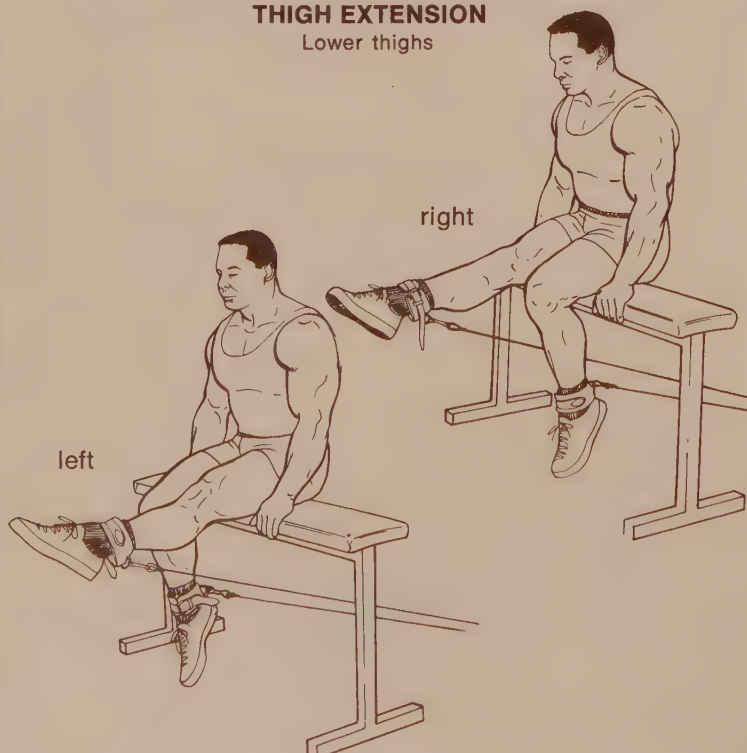
▲ One Legged Low Wall Pulley, or Iron Boot, Thigh Extension

Lower thighs

Place a fairly tall flat bench sideways in front of a low wall pulley machine. Keep the bench far enough from the machine to be able to raise the selected weight off the weight stack after you have attached ankle straps to both ankles and have hooked the right ankle strap to the right lower pulley cable and sit on the bench facing away from the machine having your buttocks and upper legs on the bench with your lower legs vertical with the floor (the pulley cable will run under the bench). Inhale and raise your right lower leg until your leg is parallel with the floor and your knee locks. Return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change to the left leg repeating the same number of repetitions. An iron boot may be used if a pulley cable is not available.

ALTERNATED LOW WALL PULLEY, OR IRON BOOT, THIGH EXTENSION

Lower thighs



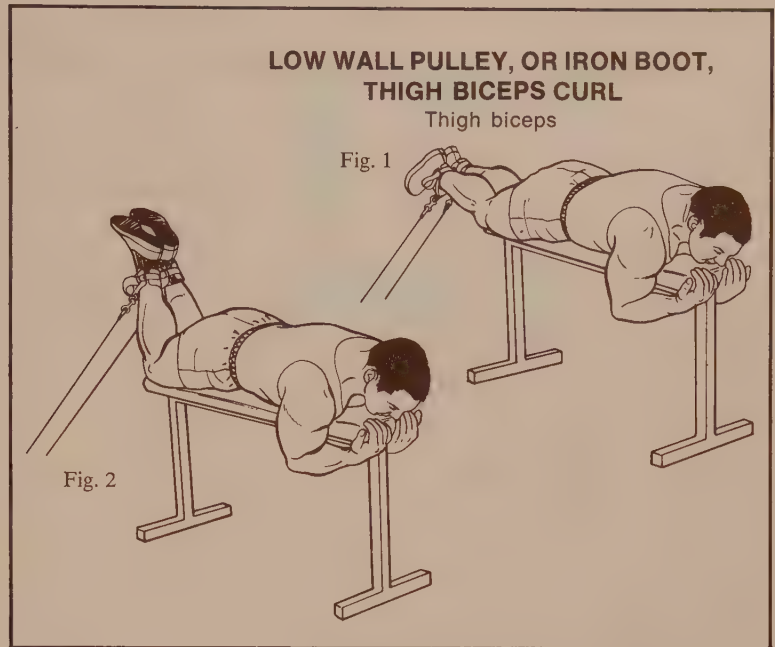
▲ Alternated Low Wall Pulley, or Iron Boot, Thigh Extension

Place a fairly tall flat bench sideways in front of a low wall pulley machine. Keep the bench far enough from the machine to be able to raise the selected weights off the weight stacks after you have attached ankle straps to both ankles and have hooked the ankle straps to the lower pulley cables and sit on the bench facing away from the machine having your buttocks and upper legs on the bench with your lower legs vertical with the floor. (The pulley cables will run under the bench.) Inhale and raise your right lower leg until your leg is parallel with the floor and your knee locks. Return to

starting position and exhale. Now, raise your left lower leg until your leg is parallel with the floor and your knee locks. Continue going from right leg to left leg until the prescribed number of repetitions are completed. Iron boots may be used if a pulley cable is not available.

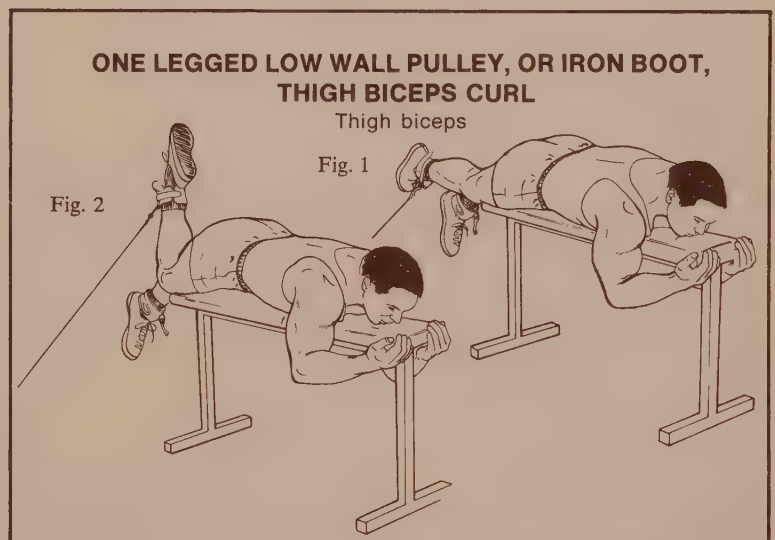
▲ Low Wall Pulley, or Iron Boot, Thigh Biceps Curl

Place an ankle strap on both of your ankles and hook the ankle straps to the lower pulley cables. Lie face down on a bench in front of the wall pulley machine far enough from the machine to be able to raise the selected weight off the weight stacks when your legs are straight. Inhale and curl your legs up until your calves and leg biceps touch. Return to starting position and exhale. Iron boots may be used if a pulley cable is not available.



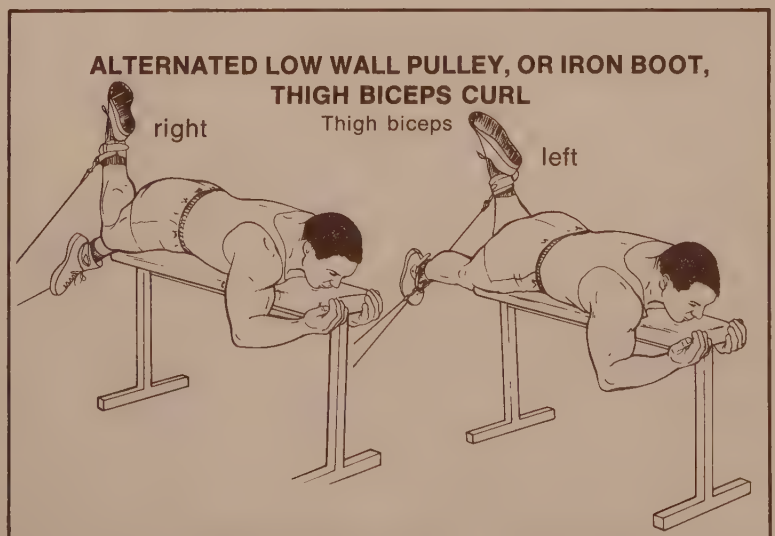
▲ One Legged Low Wall Pulley, or Iron Boot, Thigh Biceps Curl

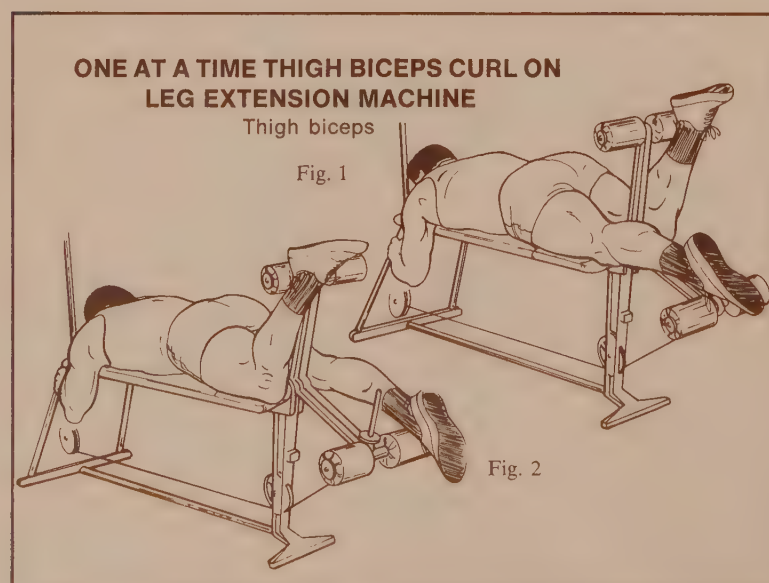
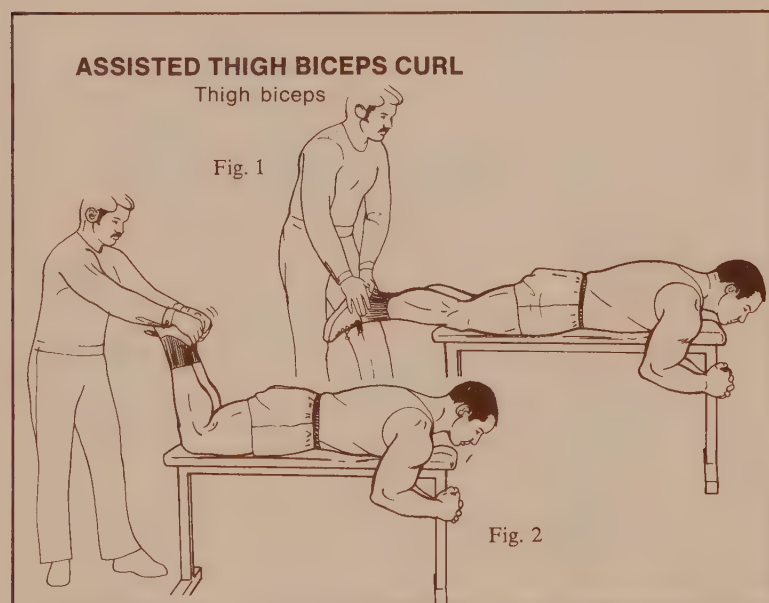
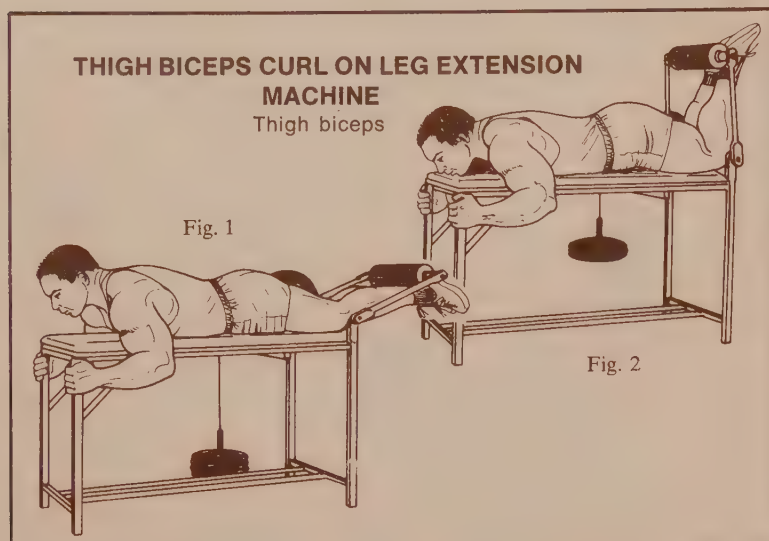
Place an ankle strap on both of your ankles and hook your right ankle strap to the right lower pulley cable. Lie face down on a bench in front of the wall pulley machine far enough from the machine to be able to raise the selected weight off the weight stack when your legs are straight out. Inhale and curl your right leg up until your right calf and leg biceps touch. Return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change to the left leg repeating the same number of repetitions. An iron boot may be used if a pulley cable is not available.



▲ Alternated Low Wall Pulley, or Iron Boot, Thigh Biceps Curl

Place an ankle strap on both of your ankles and hook the right ankle strap to the right pulley cables. Lie face down on a bench in front of the wall pulley machine far enough from the machine to be able to raise the selected weight off the weight stacks when your legs are straight. Inhale and curl your right leg up until your right calf and leg biceps touch. Return to starting position and exhale. Now, curl your left leg up until your left calf and leg biceps touch. Continue going from right leg to left leg until the prescribed number of repetitions are completed. Iron boots may be used if a pulley cable is not available.





▲ Thigh Biceps Curl on Leg Extension Machine

Lie face down on a leg extension machine with your feet to the front. Straighten your legs and place your heels under the top foot pads. Hold on to the front of the machine for support. Inhale and curl your legs up until your lower and upper legs come together. Return to starting position and exhale.

▲ Assisted Thigh Biceps Curl

Lie face down on the floor on a fairly wide bench. Straighten your legs out. Have your training partner place his hands just above your heels. Inhale and curl your legs up until your lower and upper legs come together. Return to starting position and exhale. Your partner will apply resistance for the exercise by resisting you as you curl your legs up and then you will resist him as he forces your legs back to starting position.

▲ One at a Time Assisted Thigh Biceps Curl

Thigh biceps

Lie face down on the floor on a fairly wide bench. Straighten your legs out. Have your training partner place his hands just above your right heel. Inhale and curl your right leg up until your lower and upper leg come together. Return to starting position and exhale. Your partner will apply resistance for the exercise by resisting you as you curl your right leg up and then you will resist him as he forces your right leg back to starting position. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

▲ One at a Time Thigh Biceps Curl on Leg Extension Machine

Lie face down on a leg extension machine with your feet to the front. Straighten your legs and place your heels under the top foot pads. Hold on to the front of the machine for support. Inhale and curl your right leg up until your lower and upper leg come together. Return to starting position and exhale. Do the prescribed number of repetitions on the right side and then change positions to the left side repeating the same number of repetitions.

▲ Stiff Legged Barbell Good Morning

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spac-

ing that feels most comfortable to you. Keep your head up and pointing backward. Keep your back straight and feet planted firmly on the floor about sixteen inches apart. Inhale and bend forward at the waist, keeping your head up, back straight, and knees locked, until your upper body is nearly parallel with the floor. Return to starting position and exhale.

▲ Bent Legged Barbell Good Morning

Place a barbell on your upper back. Help stabilize the bar with a hand grip and spacing that feels most comfortable to you. Keep your head up and pointing backward. Keep your back straight and feet planted firmly on the floor about sixteen inches apart. Inhale and bend forward at the waist, keeping your head up and back straight until your upper body is nearly parallel with the floor. Start the exercise with your legs straight but as the weight is brought forward gradually bend your knees until your legs are at about a 45° angle at the lowest position. Return to starting position and exhale.

■ Barbell Hyper Extension

Lower back and thigh biceps

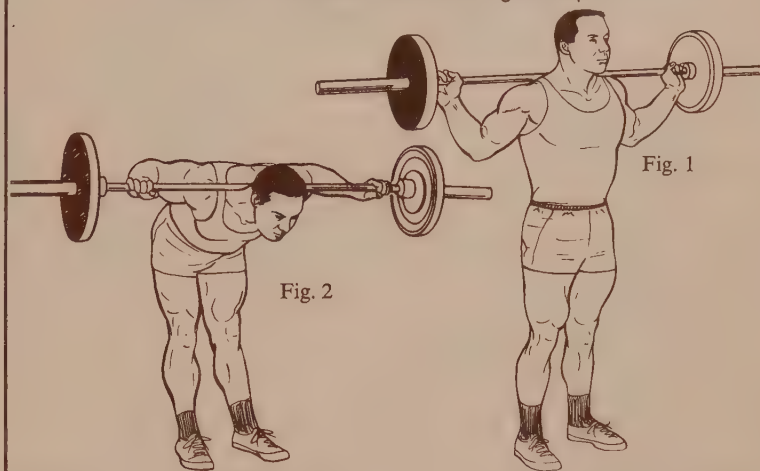
You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical with the floor. Place a barbell behind your head and inhale as you raise your torso straight up until you are slightly past parallel. Return to starting position and exhale.

■ Dumbbell Hyper Extension

You must use a bench that is designed for this exercise or have a bench that is nearly waist high in order to do the exercise properly. Using either bench, extend your upper body over the end of the bench so the end is located at the beginning of your hips. Bend at the waist so your upper body is vertical with the floor. Hold a dumbbell with each hand against your upper chest. Inhale and raise your torso straight up until you are slightly past parallel. Return to starting position and exhale.

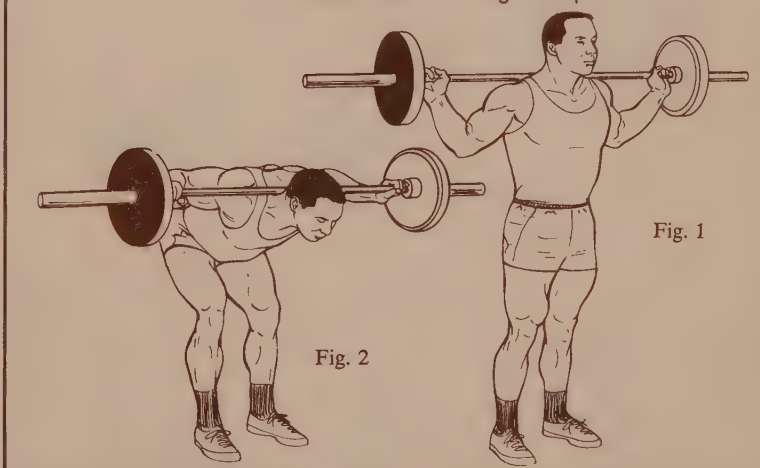
STIFF LEGGED BARBELL GOOD MORNING

Lower back and thigh biceps



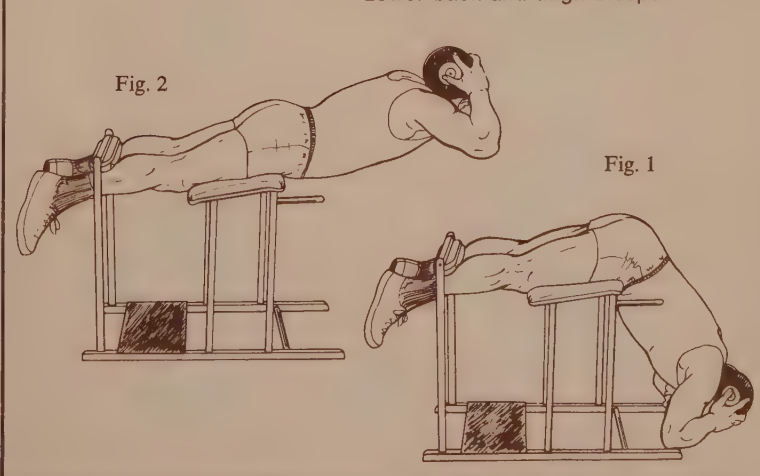
BENT LEGGED BARBELL GOOD MORNING

Lower back and thigh biceps



DUMBBELL HYPER EXTENSION

Lower back and thigh biceps



STANDING ONE LEGGED LOW WALL PULLEY, OR IRON BOOT, KNEES TO CHEST RAISE

Lower back, lower abdominals and thighs

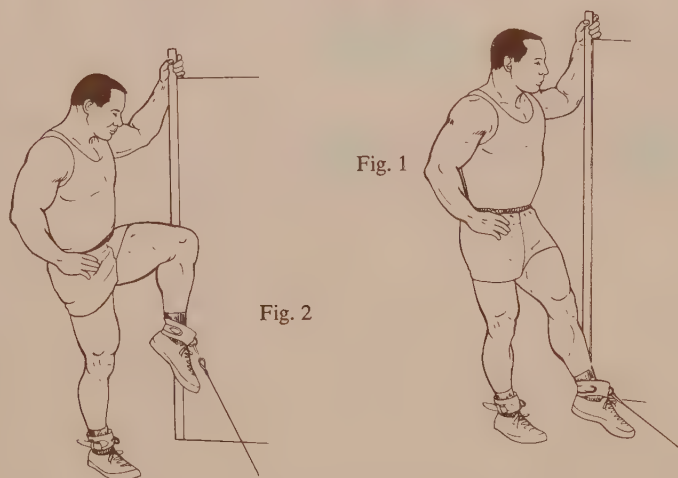


Fig. 1

Fig. 2

▲ Standing One Legged Low Wall Pulley, or Iron Boot, Knee to Chest Raise

Place an ankle strap on both of your ankles and hook the right ankle strap to the right lower pulley cable. Stand facing the machine and far enough to be able to raise the selected weight off the weight stack as you lift your right foot slightly off the floor. You might use a chair or some object for balance at this point. Inhale and raise your right thigh until it is as high as possible and as close to your chest as you can get it. Return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change to the left leg repeating the same number of repetitions. An iron boot may be used if a pulley cable is not available.

▲ Free Hand Front Lunge

Stand erect with your hands placed on your hips. Keep your head up, back straight and feet planted firmly on the floor about fourteen inches apart. Inhale and step forward as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Do the prescribed number of repetitions with your right leg and then repeat the same number of repetitions with your left leg.

FREE HAND FRONT LUNGE

Thighs and thigh biceps

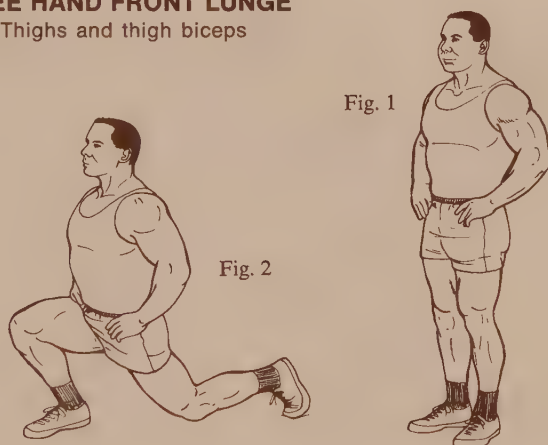


Fig. 1

Fig. 2

▲ Free Hand Alternated Front Lunge

Thighs and thigh biceps

Stand erect with your hands placed on your hips. Keep your head up, back straight and feet planted firmly on the floor about fourteen inches apart. Inhale and step forward as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Now, repeat the same movement with your left leg. Continue going from right leg to left leg until the prescribed number of repetitions are completed. A movement to the right and then to the left is considered one repetition.

FREE HAND SIDE LUNGE

Inner thighs and thigh biceps

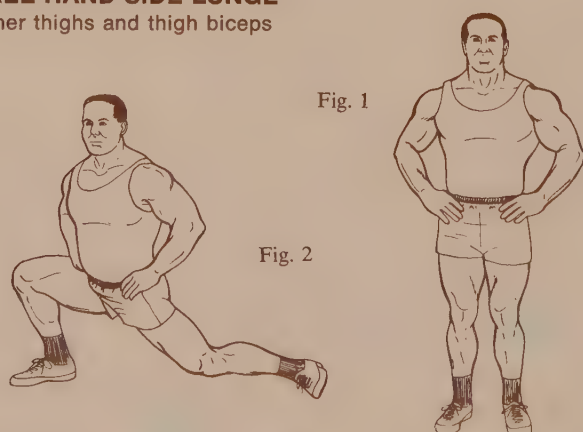


Fig. 1

Fig. 2

▲ Free Hand Side Lunge

Stand erect with your hands placed on your hips. Keep your head up, back straight and feet planted firmly on the floor

touching each other. Inhale and step out to the side as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible and not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Do the prescribed number of repetitions with your right leg and then repeat the same number of repetitions with your left leg.

▲ Free Hand Alternated Side Lunge

Stand erect with your hands placed on your hips. Keep your head up, back straight and feet planted firmly on the floor touching each other. Inhale and step out to the side as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Now, repeat the same movement with your left leg. Continue going from right leg to left leg until the prescribed number of repetitions are completed. A movement to the right and then to the left is considered one repetition.

■ Barbell Front Lunge

Place a barbell on your rear shoulders as if you were to perform a barbell squat. Keep your head up, back straight and feet planted firmly on the floor about fourteen inches apart. Inhale and step forward as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Do the prescribed number of repetitions with your right leg and then repeat the same number of repetitions with your left leg.

■ Barbell Alternated Front Lunge

Place a barbell on your rear shoulders as if you were to perform a barbell squat. Keep your head up, back straight and your feet planted firmly on the floor about fourteen inches apart. Inhale and step forward as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee

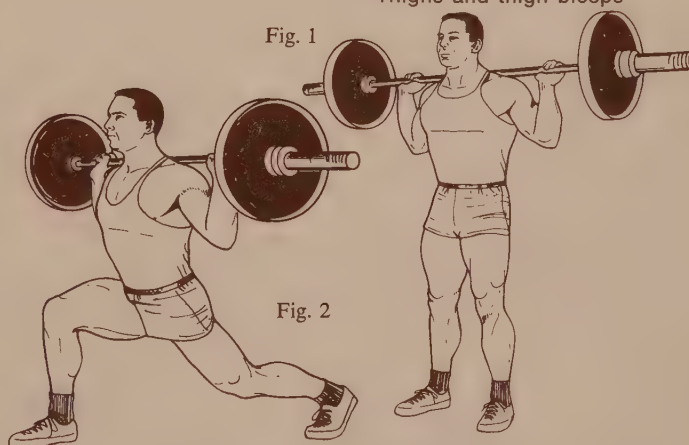
FREE HAND ALTERNATED SIDE LUNGE

Inner thighs and thigh biceps



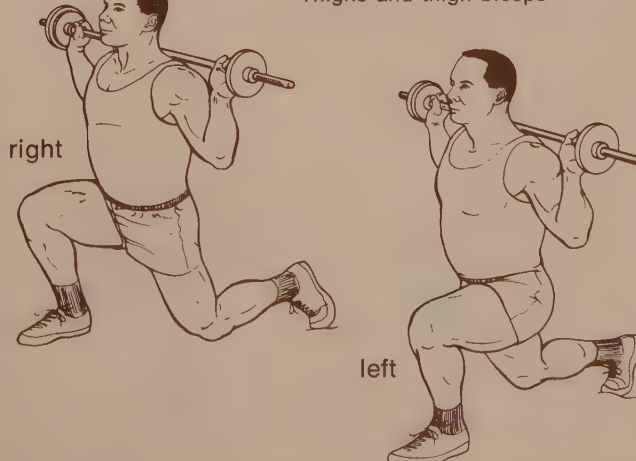
BARBELL FRONT LUNGE

Thighs and thigh biceps



BARBELL ALTERNATED FRONT LUNGE

Thighs and thigh biceps



BARBELL SIDE LUNGEInner thighs and
thigh biceps

Fig. 2

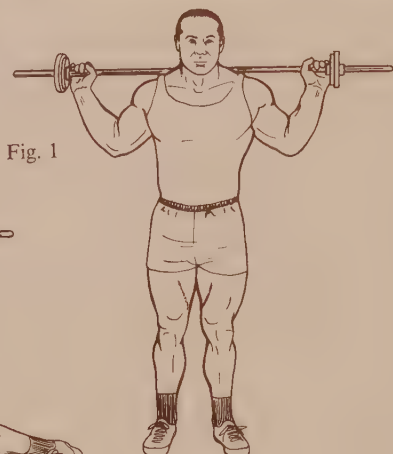


Fig. 1

BARBELL ALTERNATED SIDE LUNGE

Inner thighs and thigh biceps



right

left

DUMBBELL SIDE LUNGE

Inner thighs and thigh biceps



Fig. 2

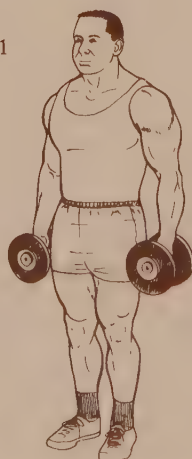


Fig. 1

any more than is necessary. From this position, step back to starting position and exhale. Now, repeat the same movement with your left leg. Continue going from right leg to left leg until the prescribed number of repetitions are completed. A movement to the right and then to the left is considered one repetition.

■ Barbell Side Lunge

Place a barbell on your rear shoulders as if you were to perform a barbell squat. Keep your head up, back straight and feet planted firmly on the floor touching each other. Inhale and step out to the side as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Do the prescribed number of repetitions with your right leg and then repeat the same number of repetitions with your left leg.

■ Barbell Alternated Side Lunge

Place a barbell on your rear shoulders as if you were to perform a barbell squat. Keep your head up, back straight and your feet planted firmly on the floor touching each other. Inhale and step out to the side as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Now, repeat the same movement with your left leg. Continue going from right leg to left leg until the prescribed number of repetitions are completed. A movement to the right and then to the left is considered one repetition.

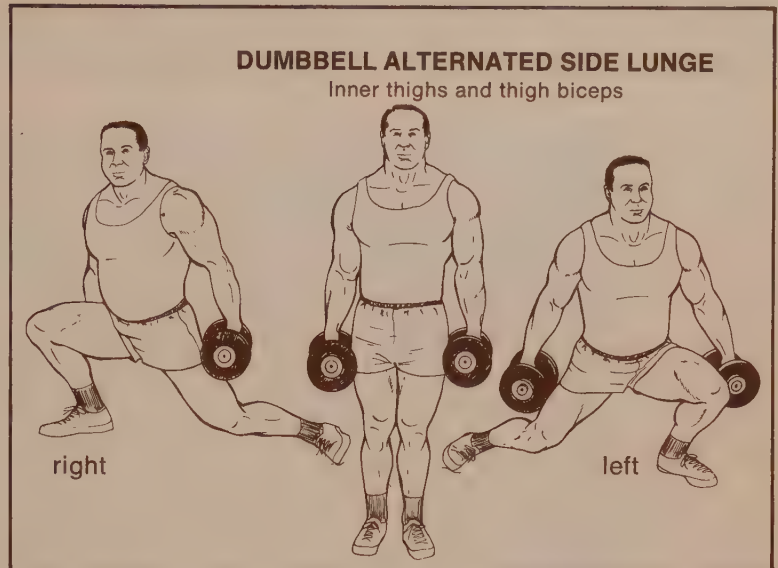
■ Dumbbell Side Lunge

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and feet planted firmly on the floor touching each other. Inhale and step out to the side as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Do the prescribed number of repetitions.

tions with your right leg and then repeat the same number of repetitions with your left leg.

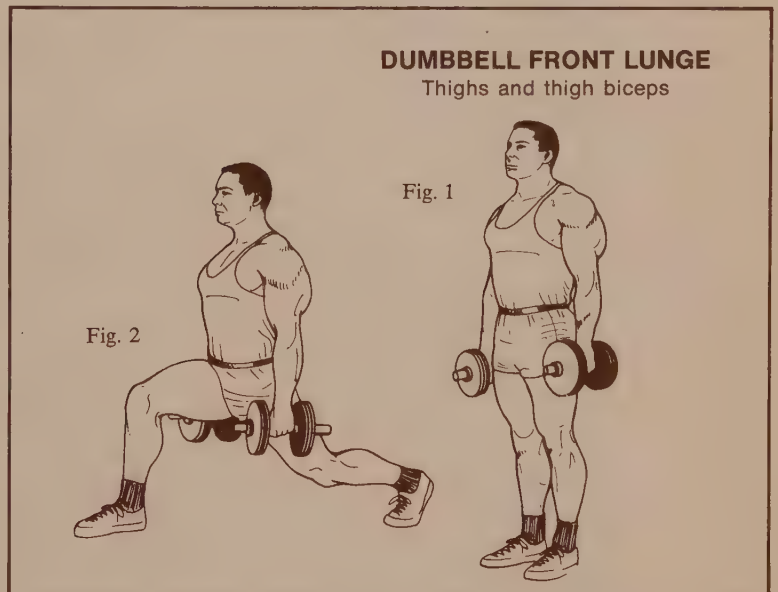
■ Dumbbell Alternated Side Lunge

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and feet planted firmly on the floor touching each other. Inhale and step out to the side as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Now, repeat the same movement with your left leg. Continue going from right leg to left leg until the prescribed number of repetitions are completed. A movement to the right and then to the left is considered one repetition.



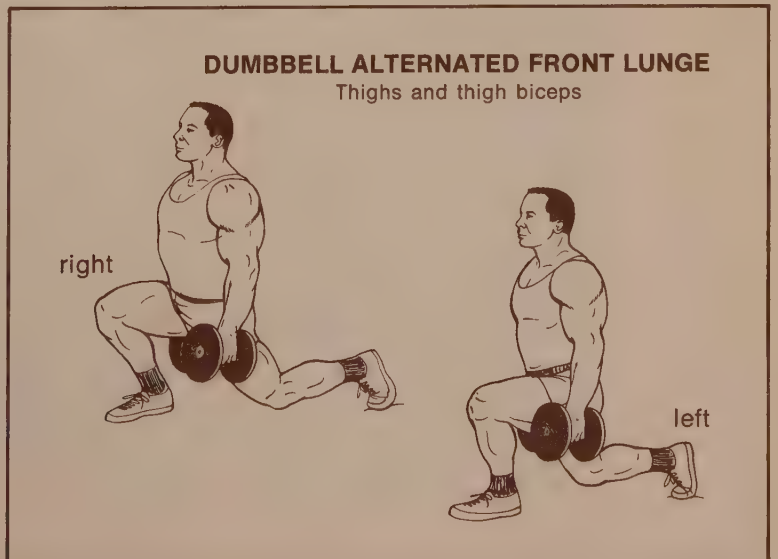
■ Dumbbell Front Lunge

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and feet planted firmly on the floor about fourteen inches apart. Inhale and step forward as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Do the prescribed number of repetitions with your right leg and then repeat the same number of repetitions with your left leg.



■ Dumbbell Alternated Front Lunge

Hold a dumbbell in each hand at arm's length to your sides with your palms facing in. Keep your head up, back straight and feet planted firmly on the floor about fourteen inches apart. Inhale and step forward as far as possible with your right leg until your upper right thigh is almost parallel with the floor. Your left leg should be held as straight as possible, not bending the knee any more than is necessary. From this position, step back to starting position and exhale. Now, repeat the same movement with your left leg. Continue going from right leg to left leg until the prescribed number of repetitions are completed. A movement to the right and then to the left is considered one repetition.



Introduction to Calf Section

The ankle joint is a hinge joint. It is the most important of the joints in the back half of the foot. The ankle joint allows the foot to assume two positions in respect to the ankle and foreleg. They are the upward movement of the foot in a straight line with the leg and the forward downward movement of the foot in a straight line with the leg. This is called flexion and extension.

Ankle flexion is a weak movement but is very important in activities which require great ankle stability as in kicking and swimming. The primary muscles which contribute to this function include peroneus tertius, tibialis anterior and extensor digitorum longus. They also play an important role in locomotion as they help control the ankle and foot in walking and running.

Ankle extension is a powerful movement which contributes greatly to lifting, throwing, jumping, running, walking, hiking, etc. The two primary muscles which affect extension are gastrocnemius and the soleus. Both are located on the back side of the leg or calf. Their action is in extending or plantar flexing the ankle joint, aiding in pointing the toes and assisting in flexion of the knee; therefore, ballet, gymnastics and swimming are directly affected by this

action. The gastrocnemius also aids in the supination of the foot.

Weakness of any of the calf muscles can lead to foot, ankle, knee and greater compensation injury to the hip and back. Postural coordination can be definitely affected by this type of weakness or injury, therefore, causing greater damage or imbalance. These stress related injuries may be noted by swelling localized around the ankles, contusion, and severe soreness along the front of the shaft of the tibia bone. Improper foot plant in walking or running may produce pain localized at the heel. If this stress is conducted up the Achilles tendon to the gastrocnemius, a muscle tear, sprain, or strain-type injury including muscle cramps, spasms, fibular and tibial fractures may occur.

Proper muscle coordination of the foreleg and calf is of great importance if an athlete is to run without injury. Not only can the athlete be conditioned to do so but many times improvement of his performance may occur.

Weight training for the ankle and foreleg is an excellent method to condition the athlete in order to prepare him for a maximum athletic effort.

Calf section



Pearl's calf measurement was 19¼ inches at the time of this photo. Because of his excellent symmetry, this huge size does not seem out of place.

CALF



If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

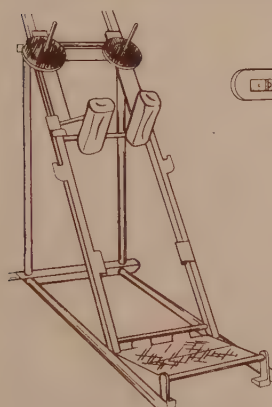
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

EQUIPMENT NEEDED FOR CALF SECTION

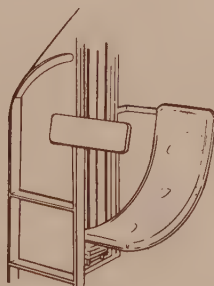


Hack Thrust Machine

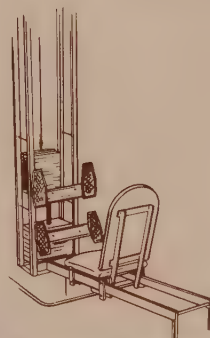


Wall Calf Machine

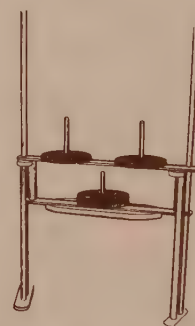
Raised Block or Platform



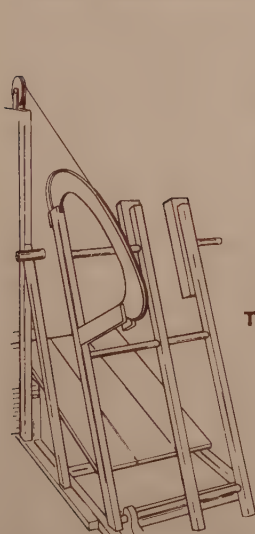
Moon Bench
Leg Press Machine



Sled Machine Leg Press



Wall Type Leg Press



Ram Thrust Machine



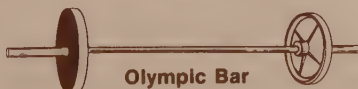
Training Partner



Dumbbells



Flat Bench



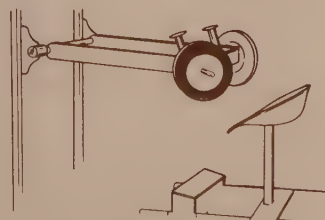
Olympic Bar



2 x 4



Universal Leg Press Machine



Seated Calf Machine



Power Rack

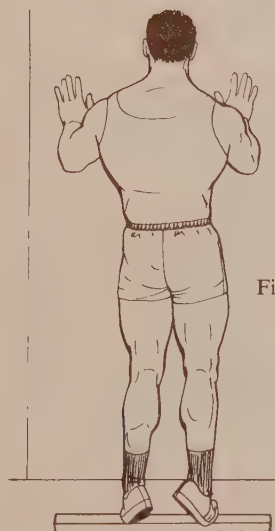
STANDING FREE HAND TOE RAISE ON 2x4

Main calf muscles

Fig. 1



Fig. 2

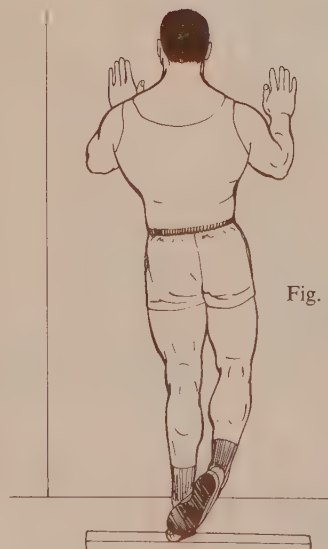
**STANDING FREE HAND ONE LEGGED TOE RAISE ON 2x4**

Main calf muscles

Fig. 1



Fig. 2

**▲ Standing Free Hand Toe Raise on 2x4**

Place a 2x4 on the floor about twenty-four inches away from a wall. Stand erect with the balls of your feet on the board. Keep your back straight, head up and legs locked. Balance yourself with your hands by placing them against the wall. Do not let your hips move backward or forward while performing this exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Standing Free Hand Alternated Toe Raise on 2x4

Main calf muscles

Place a 2x4 on the floor about twenty-four inches away from a wall. Stand erect with the balls of your feet on the board. Keep your back straight, head up and legs locked. Balance yourself with your hands by placing them against the wall. Do not let your hips move backward or forward while performing this exercise. Lower your heels to the lowest possible comfortable position. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Standing Free Hand One Legged Toe Raise on 2x4

Place a 2x4 on the floor about twenty-four inches away from a wall. Stand erect with the balls of your feet on the board. Keep your back straight, head up and legs locked. Balance yourself with your hands by placing them against the wall. Shift ALL your weight to your right leg and place your left foot against the rear of your right heel. Do not let your hips move backward

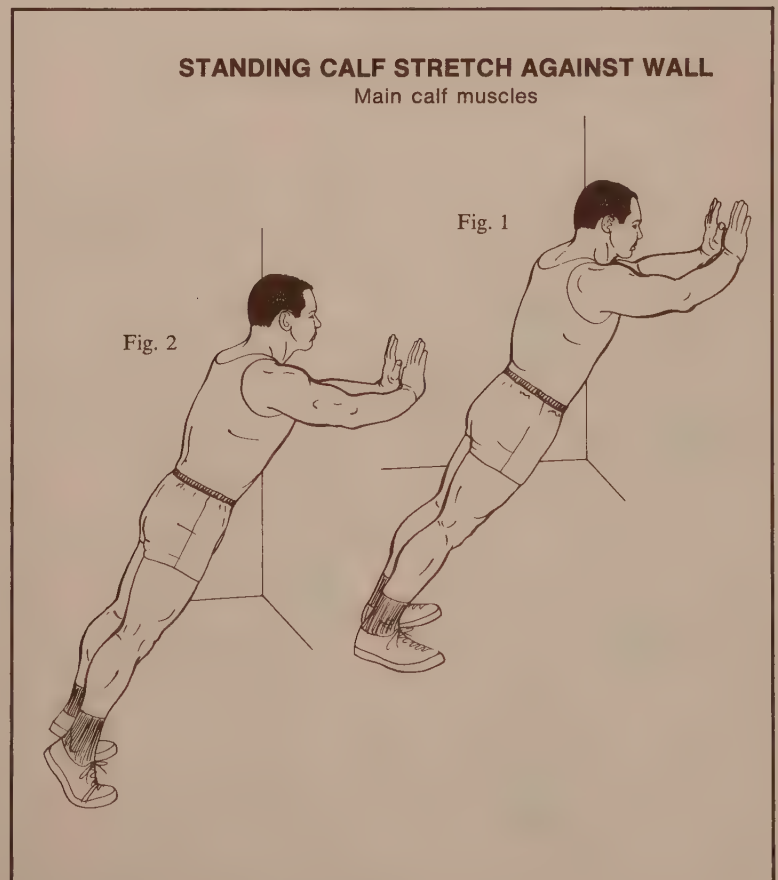
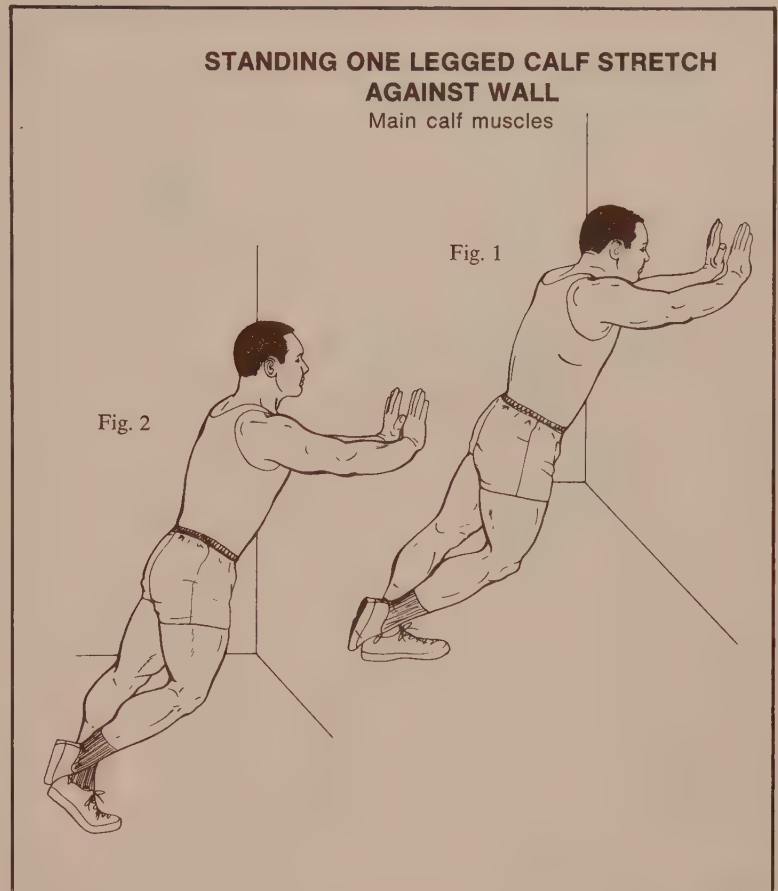
or forward while performing this exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change position to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your foot straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

▲ Standing One Legged Calf Stretch Against Wall

Stand facing a wall about forty inches back. Lean forward with outstretched arms supporting your body with your hands against the wall. Keep your back straight, head up and hips and legs locked. Keep your right foot flat on the floor causing your calf muscle to stretch out. Put your left foot against the rear of your right heel. Inhale and raise up on your right toe as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to your left leg repeating the same number. If you turn your toes out and heel in, it will cause more stretch to the inner calf. If you keep your feet straight, it will cause more stretch to the main calf muscle. If you turn your toes in and heel out, it will cause more stretch to the outside calf.

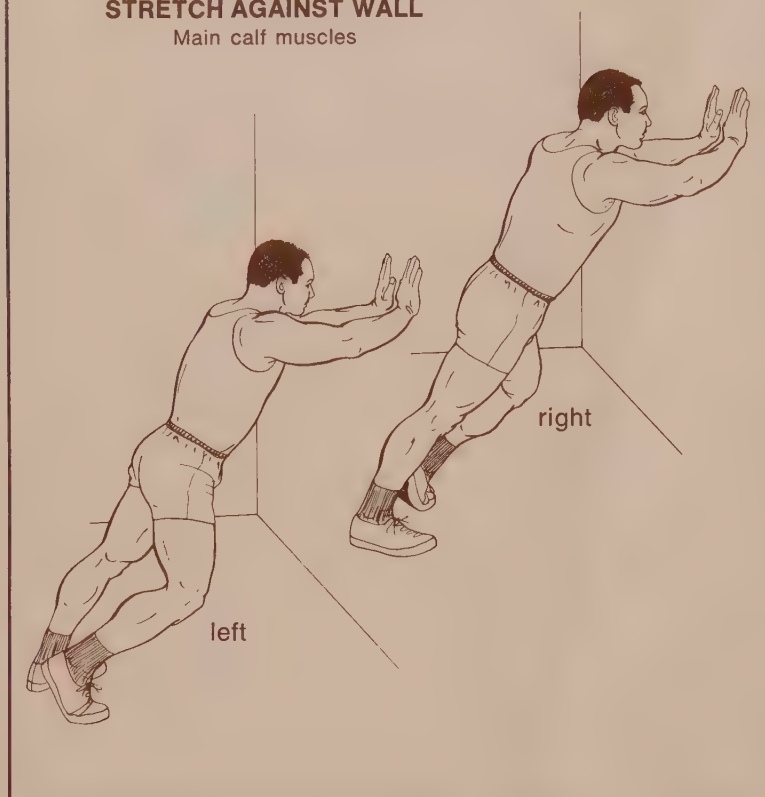
▲ Standing Calf Stretch Against Wall

Stand facing a wall about forty inches back. Lean forward with outstretched arms supporting your body with your hands against the wall. Keep your back straight, head up and hips and legs locked. Keep your feet flat on the floor causing your calf muscles to stretch out. As you get more flexibility, you can step back further from the wall causing even more of a stretch. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to the starting position and exhale. If you turn your toes out and heels in, it will cause more stretch to the inner calf. If you keep your feet straight, it will cause more stretch to the main calf muscle. If you turn your toes in and heels out, it will cause more stretch to the outside calf.



STANDING ALTERNATED CALF STRETCH AGAINST WALL

Main calf muscles

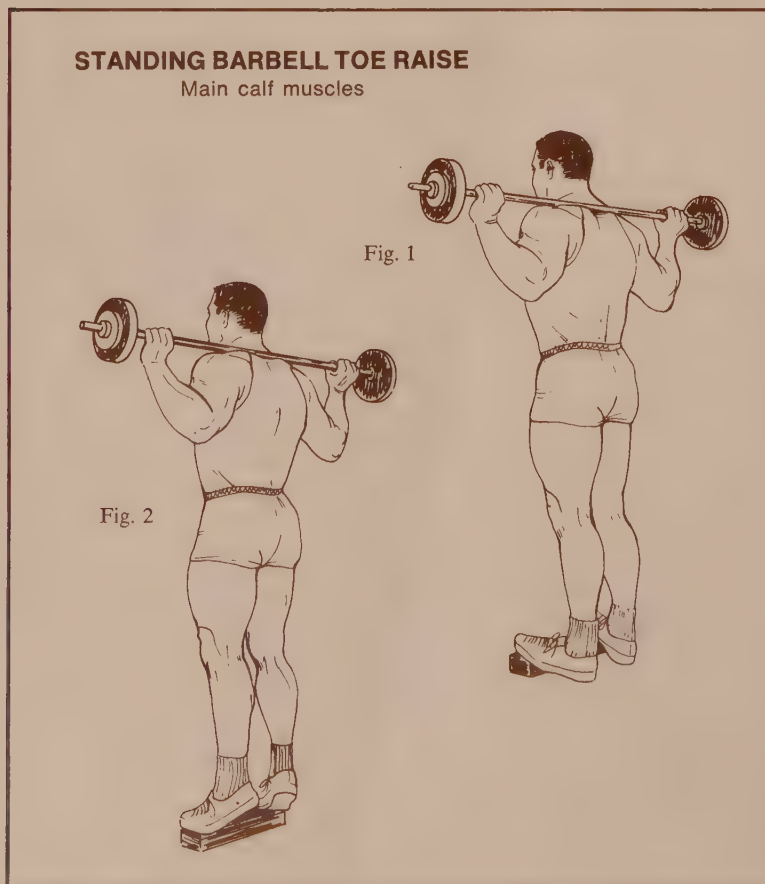


▲ Standing Alternated Calf Stretch Against Wall

Stand facing a wall about forty inches back. Lean forward with outstretched arms supporting your body with your hands against the wall. Keep your back straight, head up and hips and legs locked. Keep your feet flat on the floor causing your calf muscles to stretch out. As you get more flexibility, you can step back further from the wall causing even more of a stretch. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Inhale and raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will cause more stretch to the inner calf. If you keep your feet straight, it will cause more stretch of the main calf muscle. If you turn your toes in and heels out, it will cause more stretch to the outside calf.

STANDING BARBELL TOE RAISE

Main calf muscles



▲ Standing Barbell Toe Raise

Place a barbell on the back of your shoulders. Step on a thick board or raised platform. Place your feet on the raised object to help balance yourself and to get a full extension and contraction of the calf muscle. Place your heels down. Inhale and push up on your toes as shown in illustration #1. This position is the flexed portion of the exercise and the lowering of the heels is the extension portion. Both are important. Do the exercise slowly and deliberately. Inhale as you raise on your toes and exhale as you lower your heels. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Standing Barbell Alternated Toe Raise

Main calf muscles

Place a barbell on the back of your shoulders. Step on a thick board or raised platform. Place your feet on the raised object to help balance yourself and to get a full extension and contraction of the calf muscle. Place your heels down. Inhale and raise up on your right toes as high as pos-

sible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect your inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Barbell Toe Raise

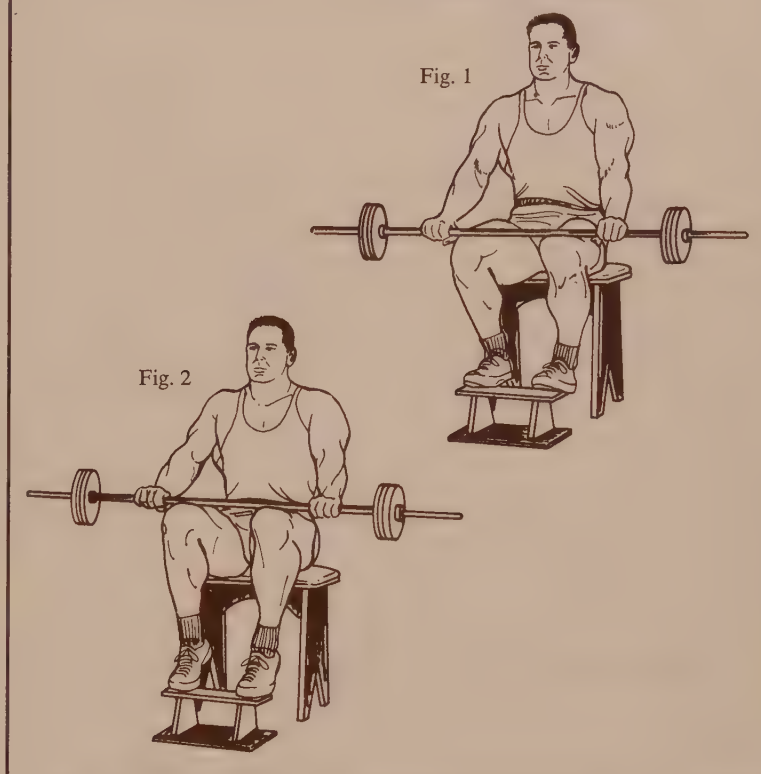
Place a thick board, or raised object, on the floor about twelve inches away from the end of a flat bench. Hold a barbell with both hands using a fairly wide palms down grip and sit on the bench and place the barbell on your upper thigh about three inches above your knees. Place the balls of your feet on the board. Keep your back straight and head up. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of your calf more.

▲ Standing Dumbbell One Legged Toe Raise

Grasp a dumbbell in your right hand. Hold it straight down to your side with the palm of your hand facing in. Step up with your right foot onto a thick board or raised object that is on the floor about twenty-four inches away from a wall. Place the ball of your right foot on the raised object and use your left arm to help balance yourself by placing your left hand against the wall. Keep your back straight, head up and leg straight, with your knees locked. Position your left foot behind and against your right heel. Lower your right heel to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your

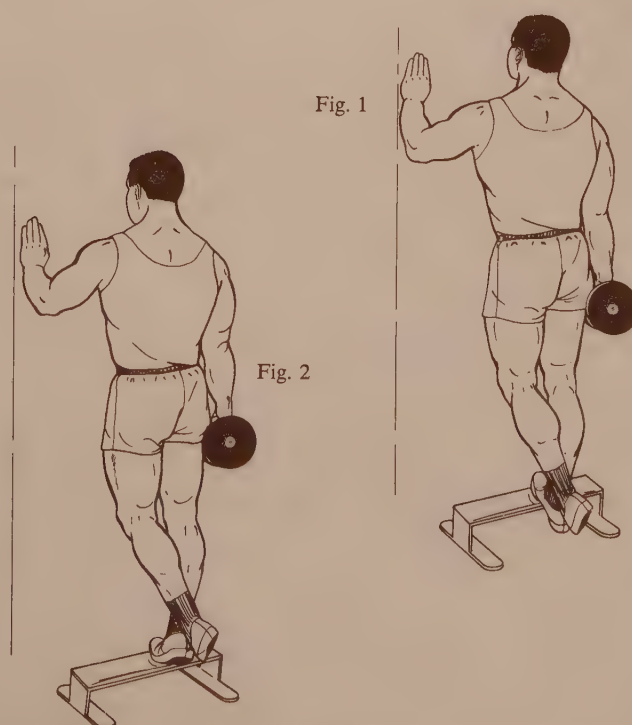
SEATED BARBELL TOE RAISE

Main calf muscles



STANDING DUMBBELL ONE LEGGED TOE RAISE

Main calf muscles



SEATED DUMBBELL ONE LEGGED TOE RAISE

Main calf muscles

Fig. 1

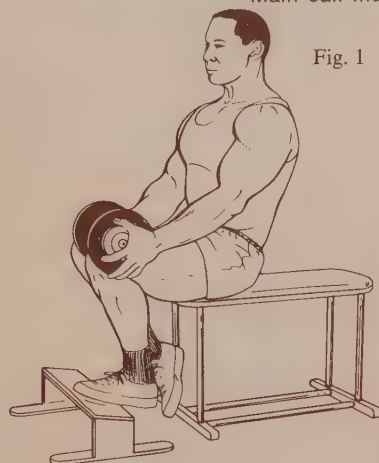
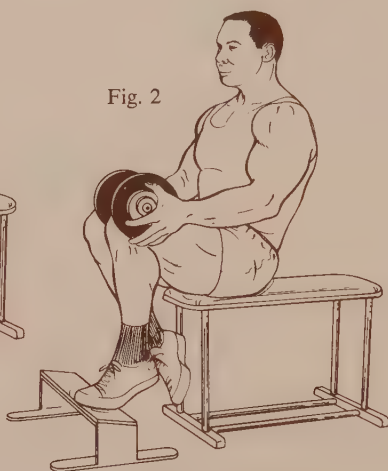


Fig. 2



DONKEY NEGATIVE RESISTANCE TOE RAISE

Main calf muscles

Fig. 1



Fig. 2



Fig. 3



feet straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

▲ Seated Dumbbell One Legged Toe Raise

Place a thick board, or raised object, on the floor about twelve inches away from the end of a flat bench. Hold a dumbbell with both hands and sit on the bench and place the dumbbell on your upper right thigh about three inches above your knee. Hold the dumbbell in place with your hands. Place the ball of your right foot on the board. Put your left foot against the rear of your right heel. Inhale and raise up on your toe as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your foot straight, it will affect the main calf more. If you turn your toes in and heel out, it will affect the outside of the calf more.

■ Donkey Negative Resistance Toe Raise

Place a thick board, or raised platform, on the floor about thirty-six inches away from an object that is about waist high that will enable you to support your upper body as you bend forward until your upper body is parallel. Place the balls of your feet on the raised platform and lock your legs keeping them straight throughout the exercise. Have your training partner step from a bench and sit on your lower back with the bulk of his weight on your hips. Have him stay as stationary as possible as you inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of your partner to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of your partner to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right to left until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it

will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Donkey One Legged Toe Raise

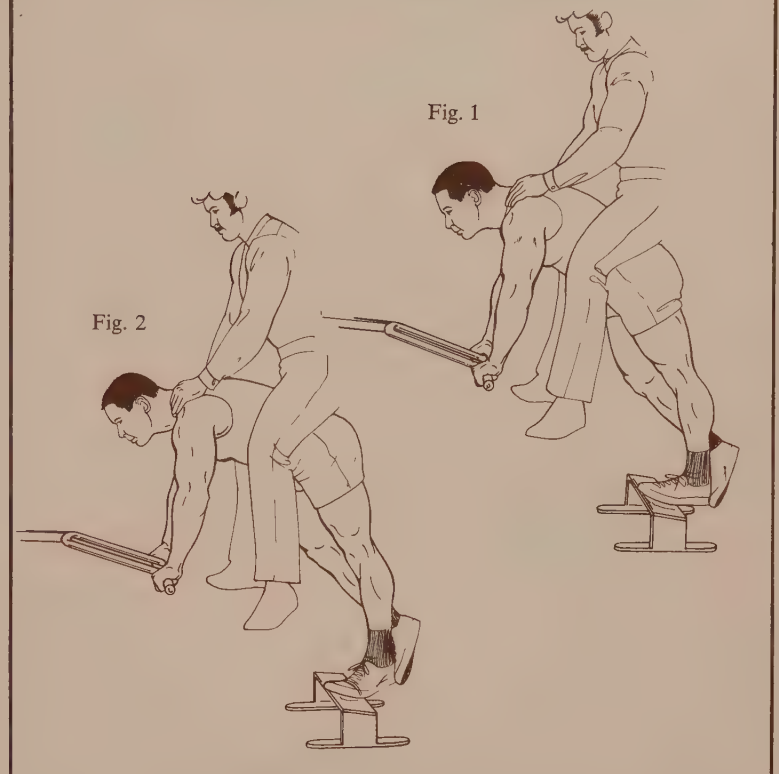
Place a thick board, or raised platform, on the floor about thirty-six inches away from an object that is about waist high that will enable you to support your upper body as you bend forward until your upper body is parallel. Place the ball of your right foot on the raised platform and position your left foot behind and against your right heel. Have your training partner step from a bench and sit on your lower back with the bulk of his weight on your hips. Have him stay as stationary as possible as you inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect your inner calf more. If you keep your foot straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

■ Donkey Alternated Toe Raise

Place a thick board, or raised platform, on the floor about thirty-six inches away from an object that is about waist high that will enable you to support your upper body as you bend forward until your back is parallel. Place the balls of your feet on the raised platform and lock your legs keeping them straight throughout the exercise. Have your training partner step from a bench and sit on your lower back with the bulk of his weight on your hips. Have him stay as stationary as possible as you inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf more. If you turn your toes in and heels out, it will affect the outside of the calf more.

DONKEY ONE LEGGED TOE RAISE

Main calf muscles



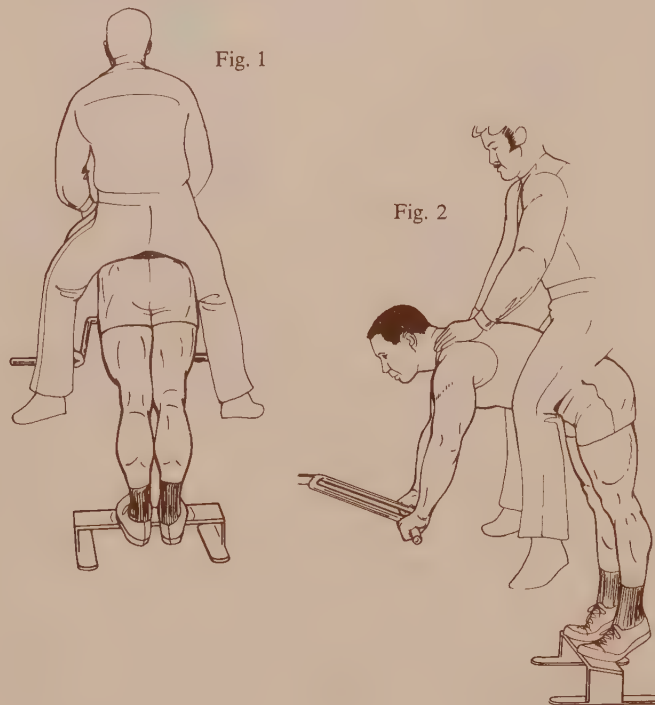
DONKEY ALTERNATED TOE RAISE

Main calf muscles



DONKEY TOE RAISE

Main calf muscles



▲ Donkey Toe Raise

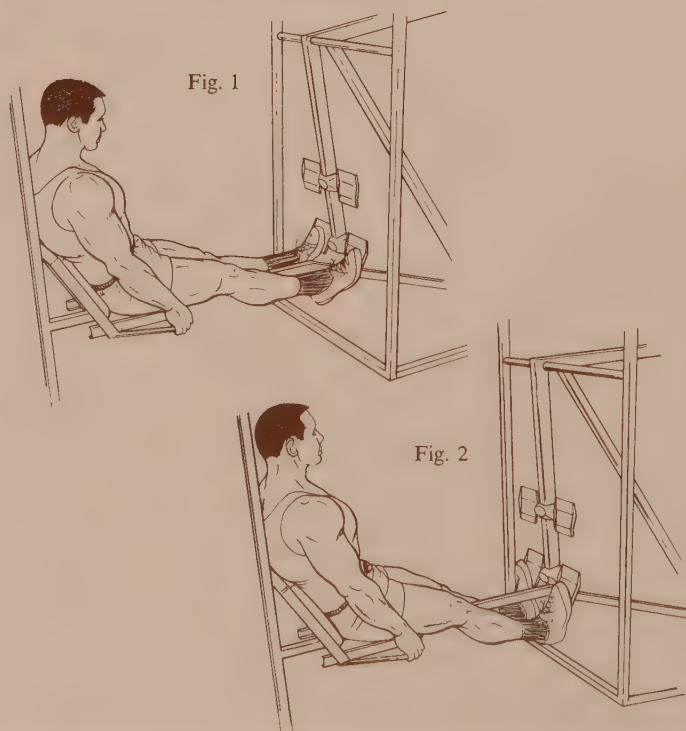
Place a thick board, or raised platform, on the floor about thirty-six inches away from an object that is about waist high that will enable you to support your upper body as you bend forward until your back is parallel. Place the balls of your feet on the raised platform and lock your legs, keeping them straight throughout the exercise. Have your training partner step from a bench and sit on your lower back with the bulk of his weight on your hips. Have him stay as stationary as possible as you inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Lower Pad Toe Raise on Universal Type Leg Press Machine

Sit on the back supported chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out until your legs are straight and your knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then return your feet to the furthest back position you comfortably can and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you turn your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

SEATED LOWER PAD TOE RAISE ON UNIVERSAL TYPE LEG PRESS MACHINE

Main calf muscles



■ Seated Lower Pad One Legged Toe Raise on Universal Type Leg Press Machine

Main calf muscles

Sit on the back supported chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the

furthest back position you comfortably can and exhale. Do the prescribed number of repetitions with your right foot and then change the pressure over to your left foot repeating the same number of repetitions. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

▲ Seated Lower Pad Alternated Toe Raise on Universal Type Leg Press Machine

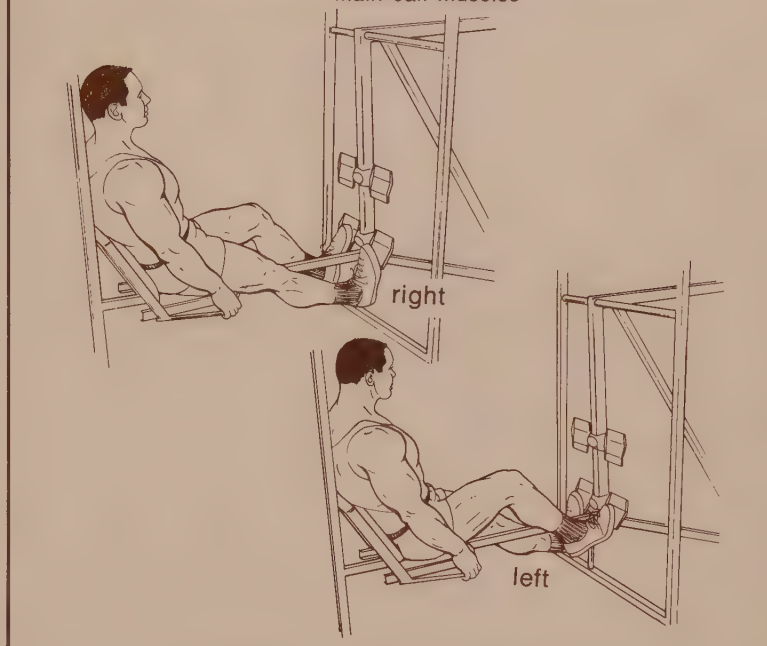
Sit on the back supported chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out until your legs are straight and your knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Now inhale and press your left foot forward as far as you comfortably can. Hold this position for a short period and return your foot to the furthest back comfortable position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Seated Negative Resistance Lower Pad Toe Raise on Universal Type Leg Press Machine

Sit on the back supported chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to the furthest back position you comfortably can and exhale. Inhale and press your

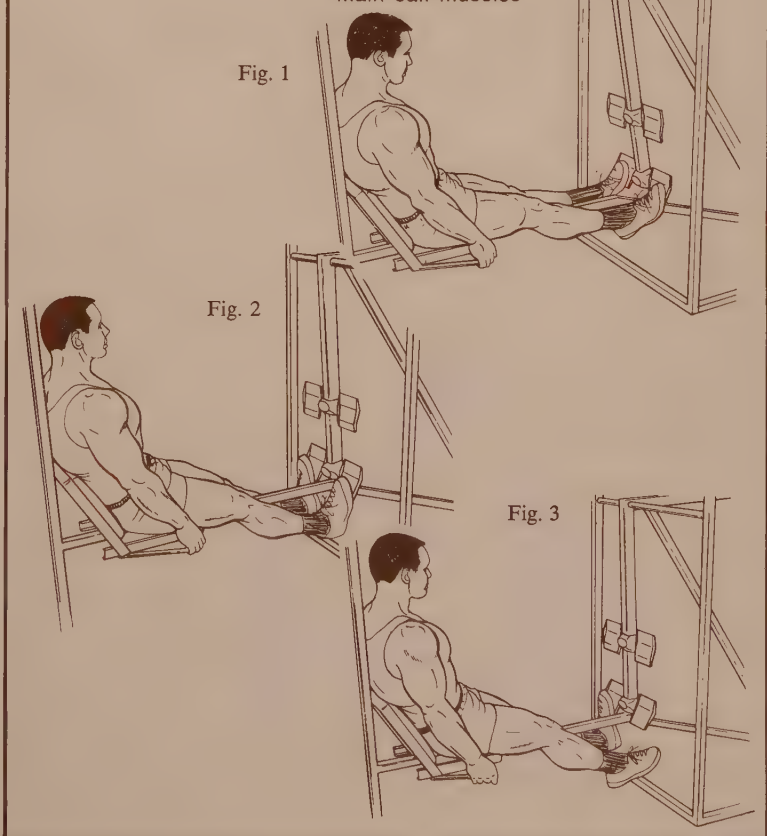
SEATED LOWER PAD ALTERNATED TOE RAISE ON UNIVERSAL TYPE LEG PRESS MACHINE

Main calf muscles



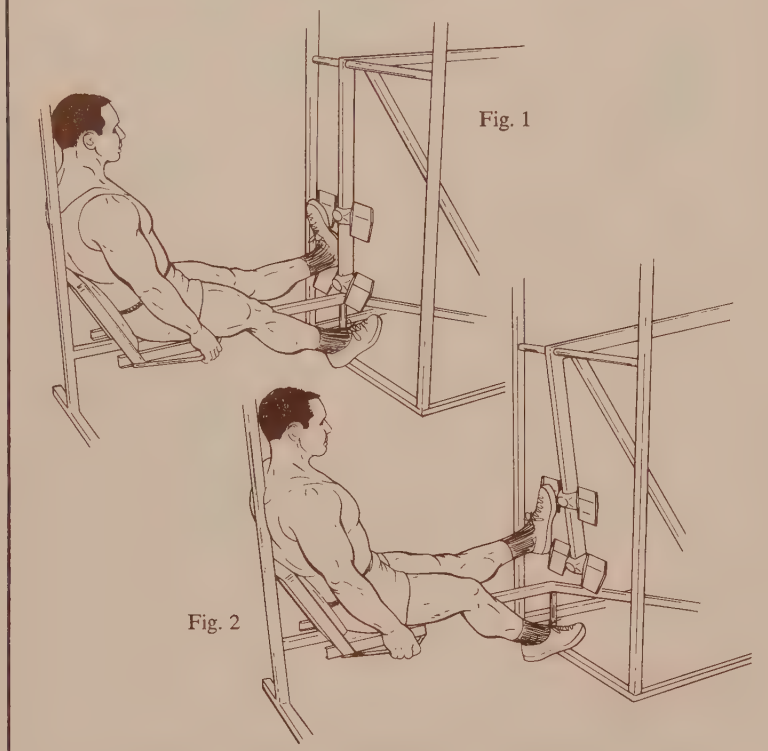
SEATED NEGATIVE RESISTANCE LOWER PAD TOE RAISE ON UNIVERSAL TYPE LEG PRESS MACHINE

Main calf muscles



SEATED TOP PAD ONE LEGGED TOE RAISE ON UNIVERSAL TYPE LEG PRESS MACHINE

Main calf muscles



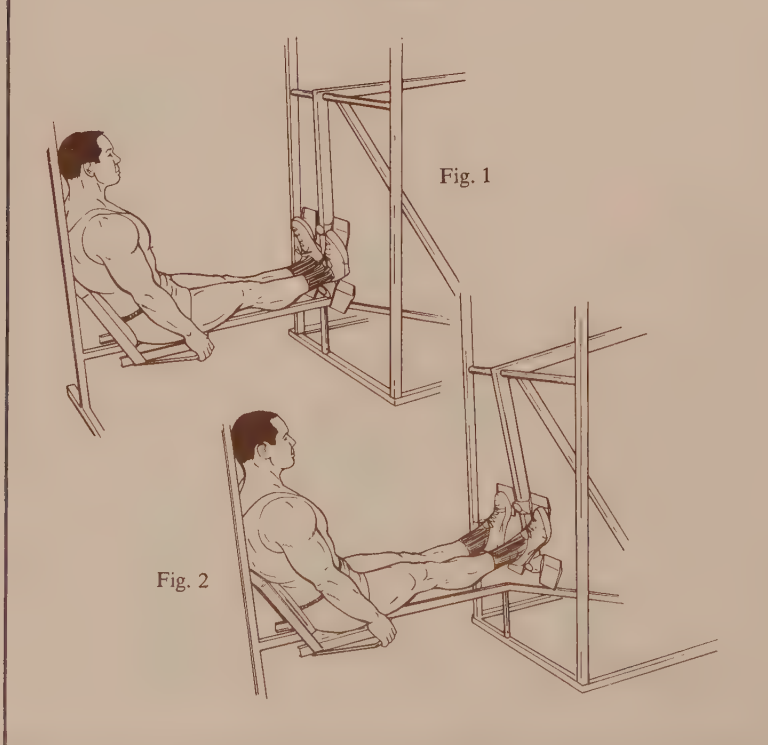
feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to the furthest back position you comfortably can. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

■ Seated Top Pad One Legged Toe Raise on Universal Type Leg Press Machine

Sit on the back supported chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stack out until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Do the prescribed number of repetitions with your right foot and then change the pressure over to your left foot repeating the same number of repetitions. If you turn your toes out and your heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

SEATED TOP PAD TOE RAISE ON UNIVERSAL TYPE LEG PRESS MACHINE

Main calf muscles



▲ Seated Top Pad Toe Raise on Universal Type Leg Press Machine

Sit on the back support chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stack out until your legs are straight and your knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then return your feet to the furthest back position you comfortably can and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight ahead, it will affect the main calf muscle more. If you turn your

toes in and heels out, it will affect the outside of the calf more.

▲ Seated Top Pad Alternated Toe Raise on Universal Type Leg Press Machine

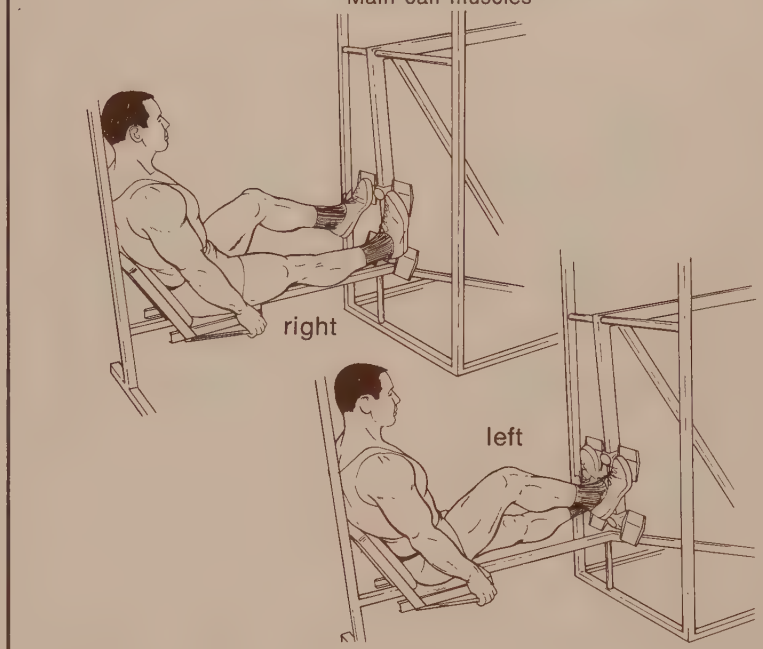
Sit on the back supported chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stack out until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Now inhale and press your left foot forward as far as you comfortably can. Hold this position for a short period and return your foot to the furthest back comfortable position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Seated Negative Resistance Top Pad Toe Raise on Universal Type Leg Press Machine

Sit on the back supported chair of a Universal type leg press machine. Hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stack out until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to the furthest back position you comfortably can and exhale. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to the furthest back position you comfortably can. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more.

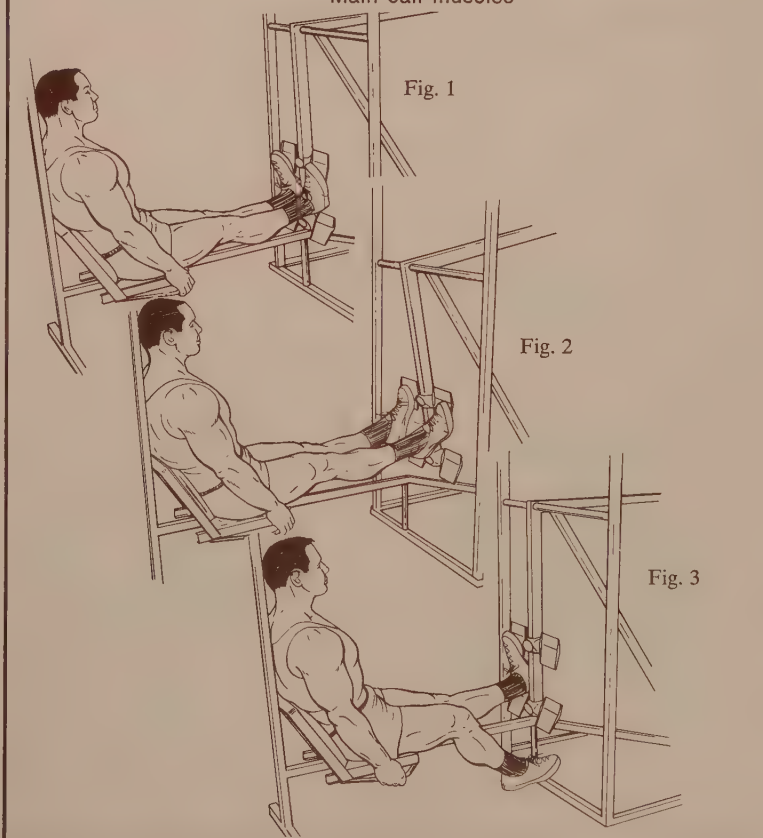
SEATED TOP PAD ALTERNATED TOE RAISE ON UNIVERSAL TYPE LEG PRESS MACHINE

Main calf muscles



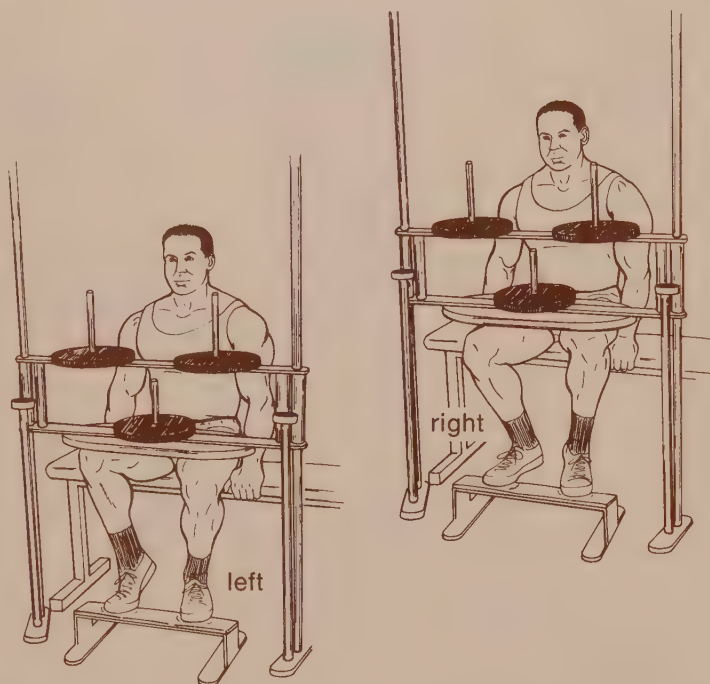
SEATED NEGATIVE RESISTANCE TOP PAD TOE RAISE ON UNIVERSAL TYPE LEG PRESS MACHINE

Main calf muscles



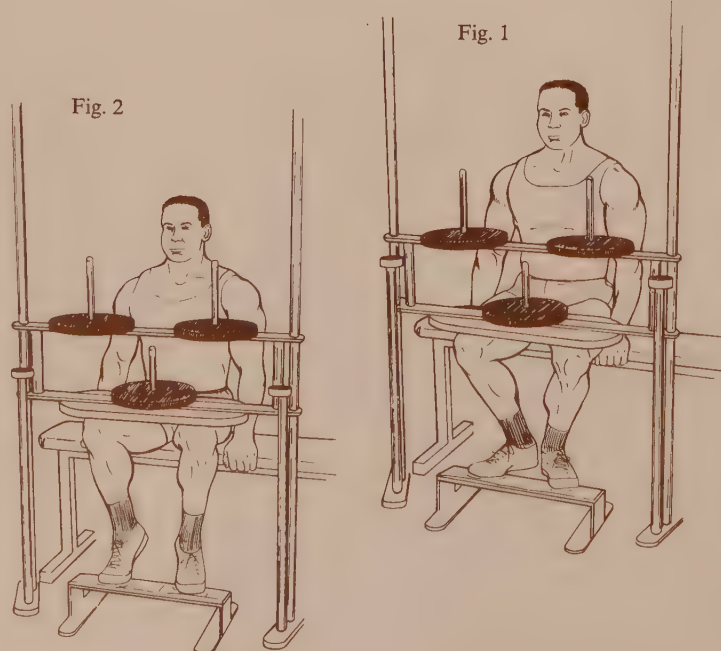
SEATED ALTERNATED TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



SEATED TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Alternated Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about sixteen inches away. Sit on the bench facing the leg press and place your upper knees and thighs under the foot pad of the leg press. Place the balls of your feet on the raised platform. Press the foot pad up and release the safety stops and then lower your feet to the lowest possible comfortable position. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and then return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes in and heels out, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about sixteen inches away. Sit on the bench facing the leg press and place your upper knees and thighs under the foot pad of the leg press. Place the balls of your feet on the raised platform. Press the foot pad up and release the safety stops and then lower your feet to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Seated Negative Resistance Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about sixteen inches away. Sit on the bench facing the leg press and place your upper knees and thighs under the foot pad of the leg press. Place the balls of your feet on the raised platform. Press the foot pad up and release the safety stops and then lower your feet to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Seated One Legged Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about sixteen inches away. Sit on the bench facing the leg press and place your upper knees and thighs under the foot pad of the leg press. Place the ball of your right foot on the raised platform. Press the foot pad up and release the safety stops and then lower your foot to the lowest possible comfortable position. Put your left foot behind and against your right heel. Inhale and raise up on your right foot as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to your left leg, repeating the same number. If you turn your toes out and heel in, it will affect your

SEATED NEGATIVE RESISTANCE TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles

Fig. 1



Fig. 2



Fig. 3



SEATED ONE LEGGED TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles

Fig. 1



Fig. 2



STANDING NEGATIVE RESISTANCE TOE RAISE ON WALL CALF MACHINE

Main calf muscles

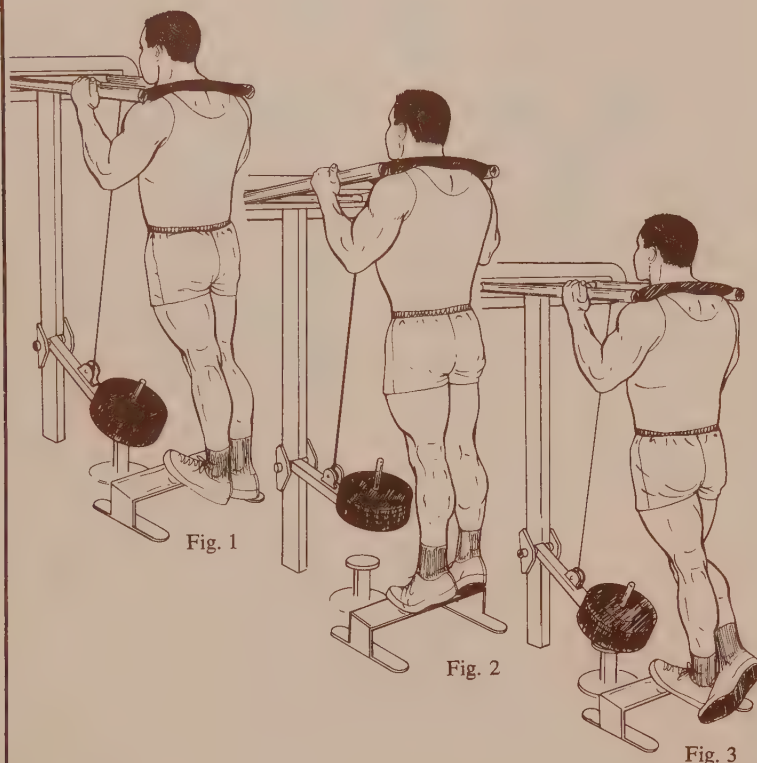


Fig. 1

Fig. 2

Fig. 3

STANDING TOE RAISE ON WALL CALF MACHINE

Main calf muscles

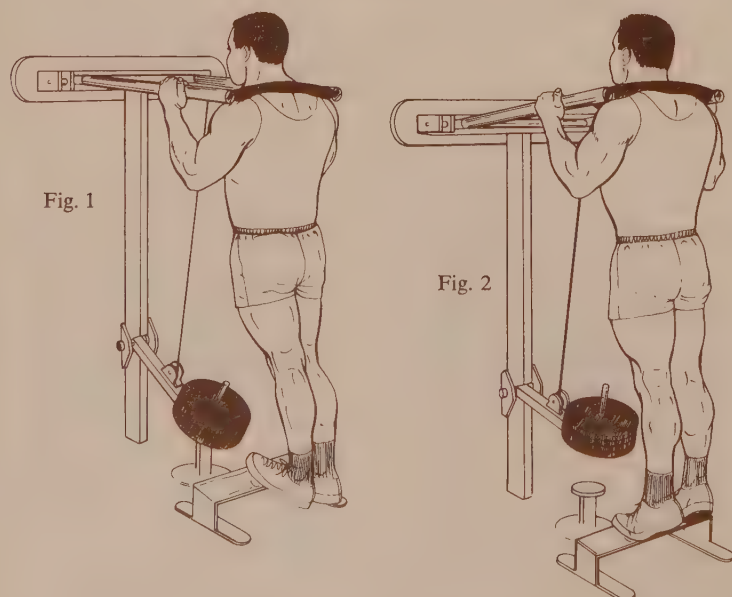


Fig. 1

Fig. 2

inner calf more. If you keep your foot straight, it will affect your main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

■ Standing Negative Resistance Toe Raise on Wall Calf Machine

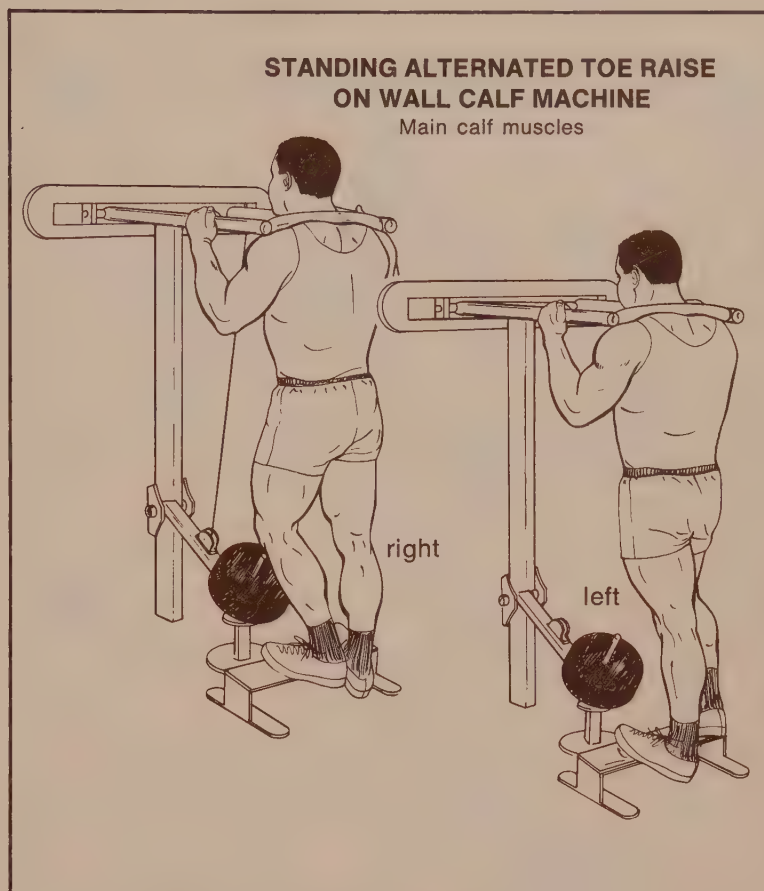
Position your shoulders under the extended portion of a wall calf machine. Stand erect and place the balls of your feet on the foot pad that is directly below the extended portion of the machine. Keep your back straight, head up and leg locked during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Lower your heels to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside calf more.

▲ Standing Toe Raise on Wall Calf Machine

Position your shoulders under the extended portion of a wall calf machine. Stand erect and place the balls of your feet on the foot pad that is directly below the extended portion of the machine. Keep your back straight, head up and legs locked during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Lower your heels to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

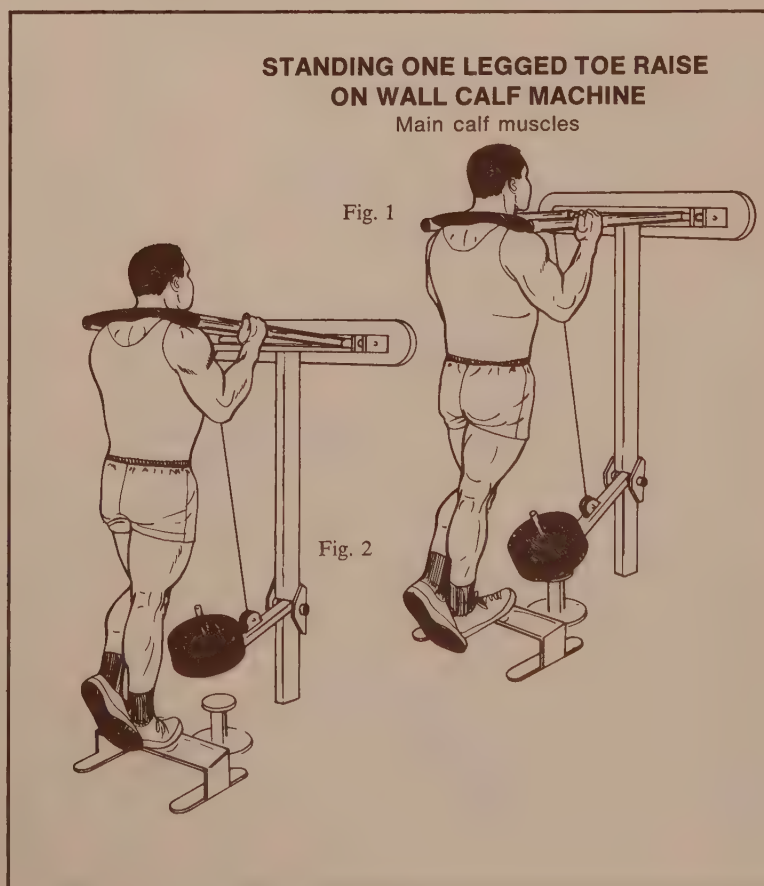
▲ Standing Alternated Toe Raise on Wall Calf Machine

Position your shoulders under the extended portion of a wall calf machine. Stand erect and place the balls of your feet on the foot pad that is directly below the extended portion of the machine. Keep your back straight, head up and legs locked during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Lower your heels to the lowest possible comfortable position. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.



■ Standing One Legged Toe Raise on Wall Calf Machine

Position your shoulders under the extended portion of a wall calf machine. Stand erect and place the ball of your right foot on the foot pad that is directly below the extended portion of the machine. Place your left foot against the rear of your right heel. Keep your back straight, head up and leg locked out during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Lower your right heel to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

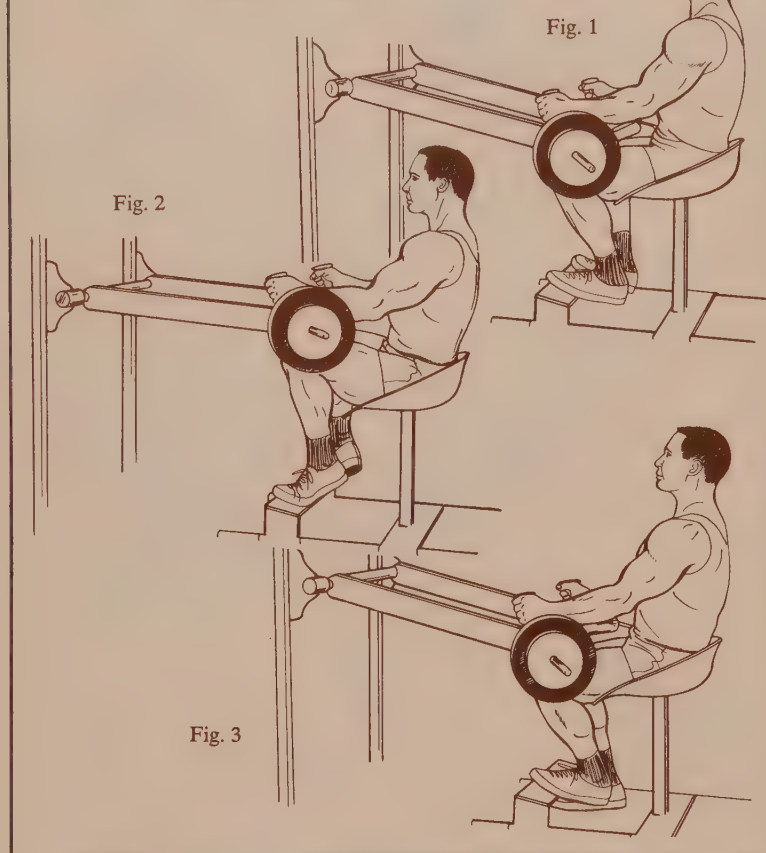


■ Seated Negative Resistance Toe Raise on Seated Calf Machine

Sit on the seat of a seated calf machine and place your upper thighs, just above

SEATED NEGATIVE RESISTANCE TOE RAISE ON SEATED CALF MACHINE

Main calf muscles



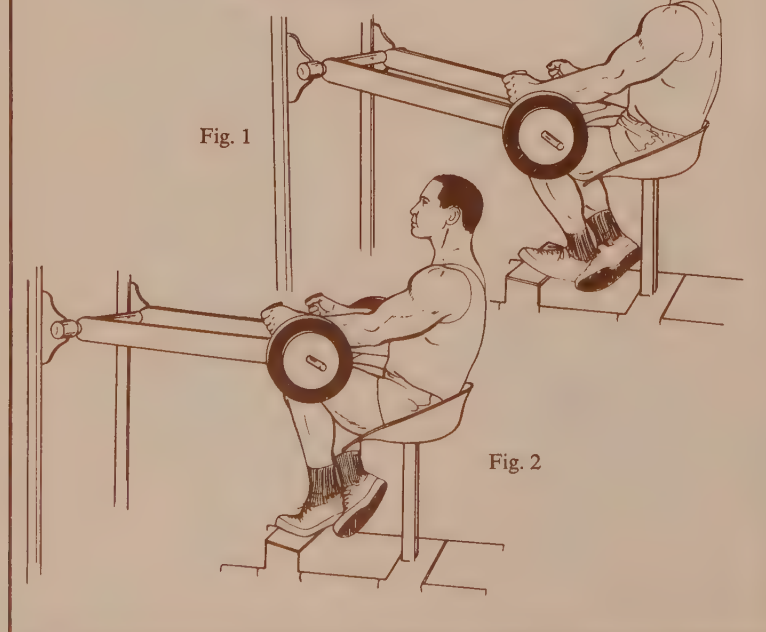
your knees, under the leg pad. Place the balls of your feet on the foot pad that is directly below the leg pad. Raise up on your toes and release the safety stops. Lower your heels to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing the right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside calf more.

■ Seated One Legged Toe Raise on Seated Calf Machine

Sit on the seat of a seated calf machine and place your upper thighs, just above your knees, under the leg pad. Place the balls of your feet on the foot pad that is directly below the leg pad. Raise up on your toes and release the safety stops. Now shift all the weight of the machine on to your right leg and place your left foot against the rear of your right heel. Lower your right heel to the lowest possible comfortable position. Inhale and raise up on your toe as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your foot straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

SEATED ONE LEGGED TOE RAISE ON SEATED CALF MACHINE

Main calf muscles



▲ Seated Alternated Toe Raise on Seated Calf Machine

Sit on the seat of a seated calf machine and place your upper thighs, just above your knees, under the leg pad. Place the balls of your feet on the foot pad that is directly below the leg pad. Raise up on your

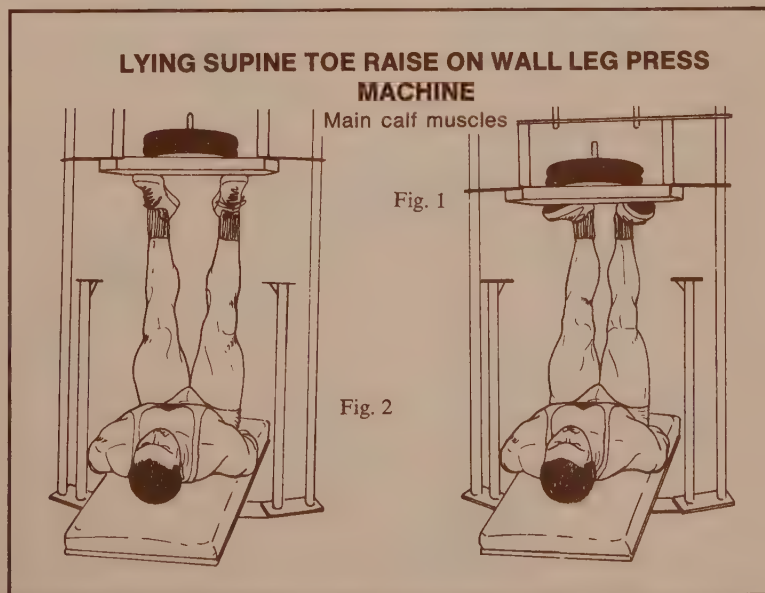
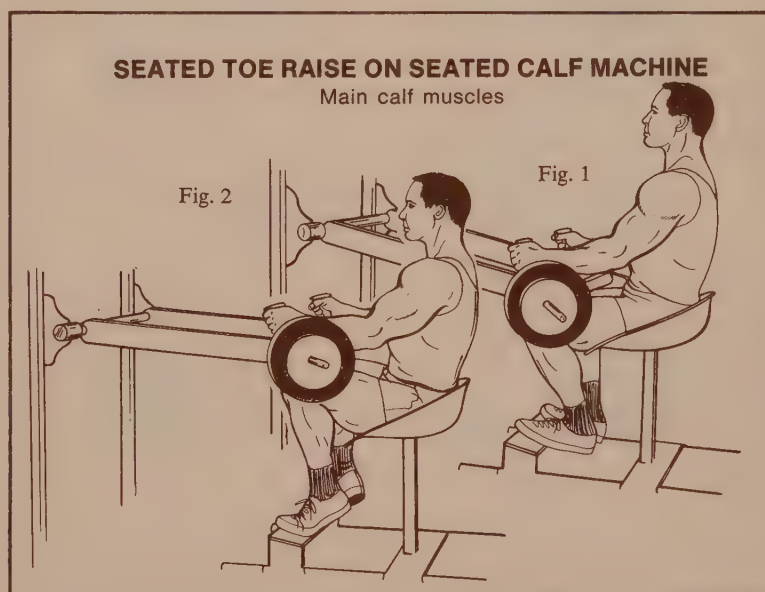
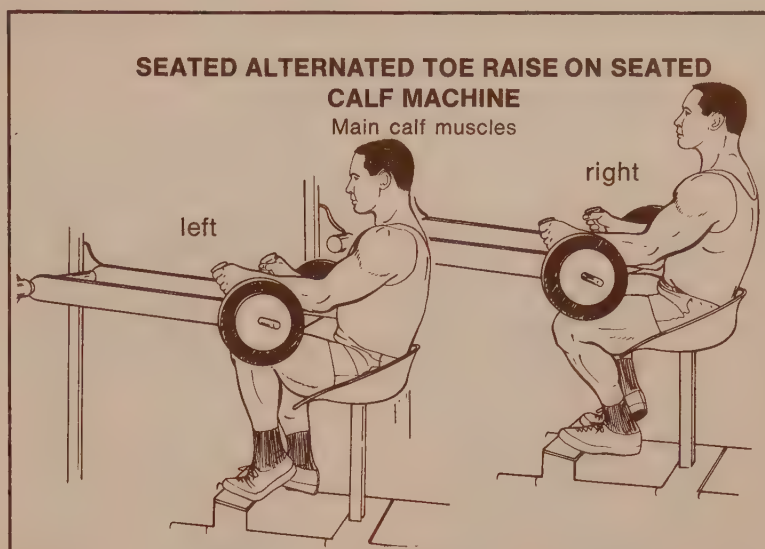
toes and release the safety stops. Lower your heels to the lowest possible comfortable position. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Toe Raise on Seated Calf Machine

Sit on the seat of a seated calf machine and place your upper thighs, just above your knees, under the leg pad. Place the balls of your feet on the foot pad that is directly below the leg pad. Raise up on your toes and release the safety stops. Lower your heels to the lowest possible comfortable position. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

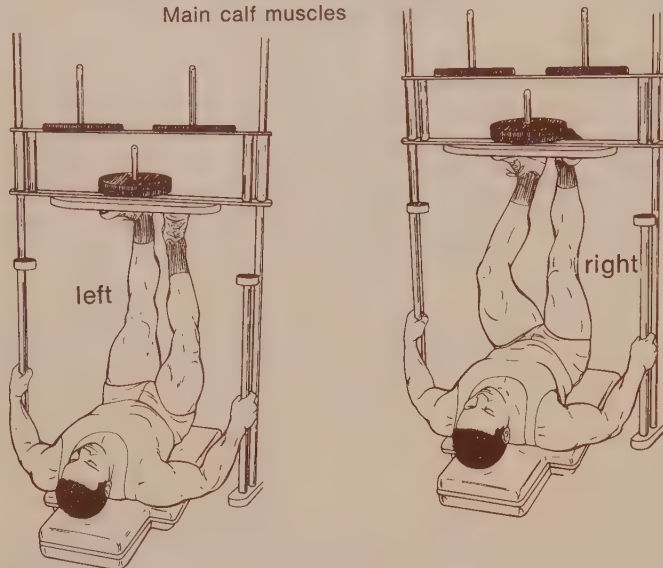
▲ Lying Supine Toe Raise on Wall Leg Press Machine

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your hips are directly under the foot pad of the machine. Position the balls of your feet on the foot pad. Press the weight rack upward until your legs are straight and knees lock. Release the safety stops with both hands and then place your hands under your buttocks palms facing down. Inhale and press up with your toes raising the weight rack as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.



LYING SUPINE ALTERNATED TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



LYING SUPINE NEGATIVE RESISTANCE TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles

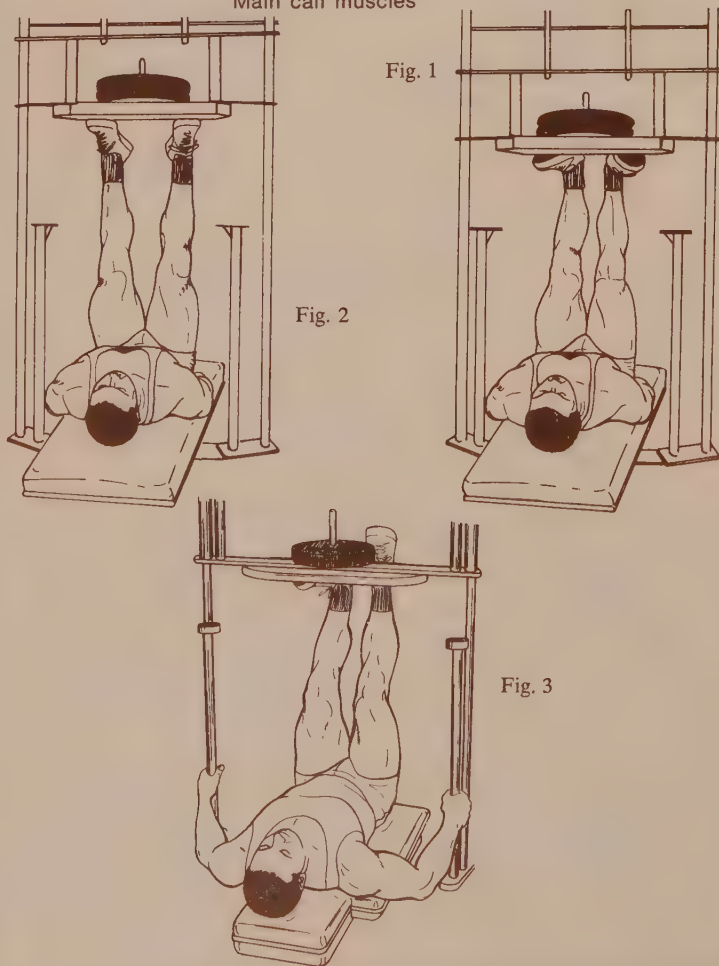


Fig. 1

Fig. 2

Fig. 3

▲ Lying Supine Alternated Toe Raise on Wall Leg Press Machine

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your hips are directly under the foot pad of the machine. Position the balls of your feet on the foot pad. Press the weight rack upward until your legs are straight and knees lock. Release the safety stops with both hands and then place your hands under your buttocks palms facing down. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Lying Supine Negative Resistance Toe Raise on Wall Leg Press

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your hips are directly under the foot pad of the machine. Position the balls of your feet on the foot pad. Press the weight rack upward until your legs are straight and knees lock. Release the safety stops with both hands and then place your hands under your buttocks palms facing down. Inhale and press up with your toes raising the weight rack as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out,

it will affect the outside of the calf more.

■ Lying Supine One Legged Toe Raise on Wall Leg Press Machine

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your hips are directly under the foot pad of the machine. Position the balls of your feet on the foot pad. Press the weight rack upward until your legs are straight and knees lock. Release the safety stops with both hands and then place your hands under your buttocks palms facing down. Now shift ALL the weight of the machine on to your right leg and place your left foot against the rear of your right heel. Lower your right toes to the lowest possible comfortable position. Inhale and raise up on your toe as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

LYING SUPINE ONE LEGGED TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles

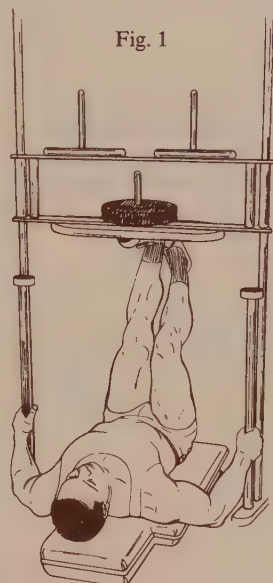


Fig. 1

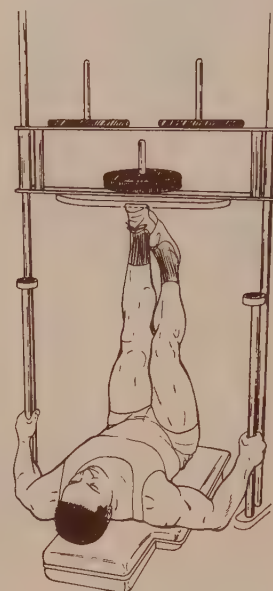


Fig. 2

■ Lying Face Down One Legged Toe Raise on Wall Leg Press Machine

Lie face down on the support pad under a wall type leg press machine. Position your body backward or forward under the machine until your lower legs are vertical to the floor when they are bent at the knees and the balls of your feet are placed under the foot pad. Press your toes upward and have your training partner release the safety stops. Now shift ALL the weight of the machine on to your right leg and place your left foot against the rear of your right heel. Lower your right toes to the lowest possible comfortable position. Inhale and raise up on your toe as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your foot straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

LYING FACE DOWN ONE LEGGED TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



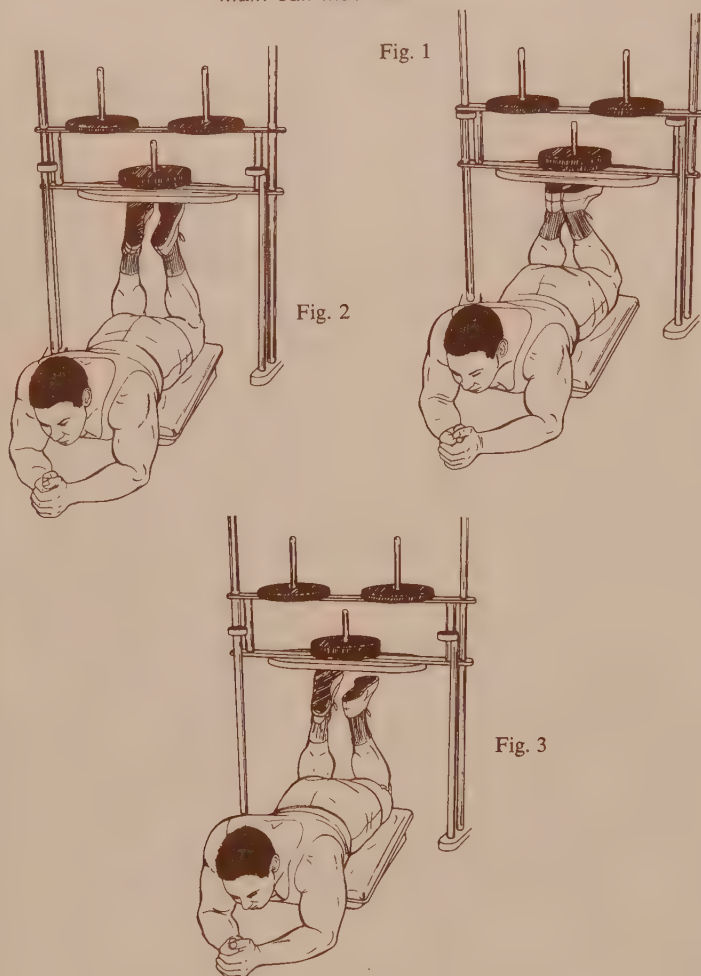
Fig. 1



Fig. 2

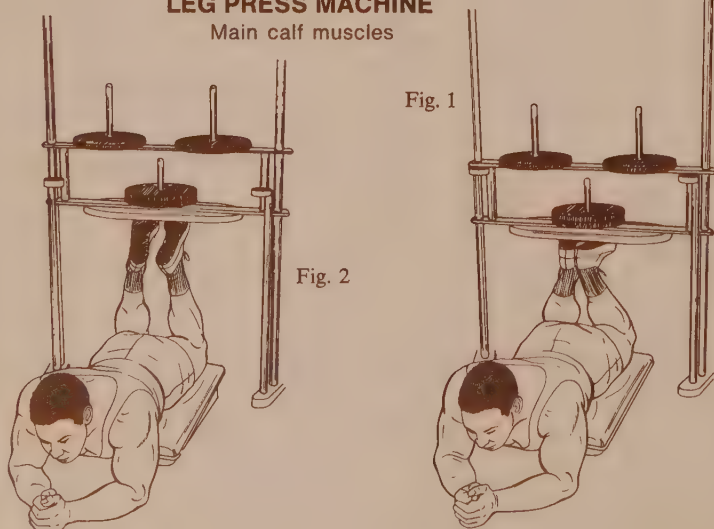
LYING FACE DOWN NEGATIVE RESISTANCE TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



LYING FACE DOWN TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



■ **Lying Face Down Negative Resistance Toe Raise on Wall Leg Press Machine**

Lie on the support pad in a supine position under a wall type leg press machine. Position your body backward or forward under the machine until your lower legs are vertical to the floor when they are bent at the knees and the balls of your feet are placed under the foot pad. Press your toes upward and have your training partner release the safety stops. Inhale and press up with your toes raising the weight rack as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ **Lying Face Down Toe Raise on Wall Leg Press Machine**

Lie face down on the support pad under a wall type leg press machine. Position your body backward or forward under the machine until your lower legs are vertical to the floor when they are bent at the knees and the balls of your feet are placed under the foot pad. Press your toes upward and have your training partner release the safety stops. Inhale and press up with your toes raising the weight rack as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ **Lying Face Down Alternated Toe Raise on Wall Leg Press Machine**

Lie face down on the support pad under a wall type leg press machine. Position your body backward or forward under the machine until your lower legs are vertical to

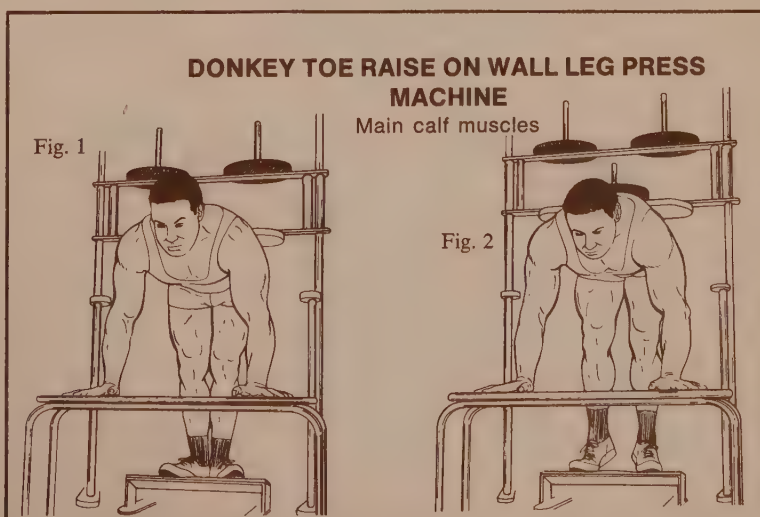
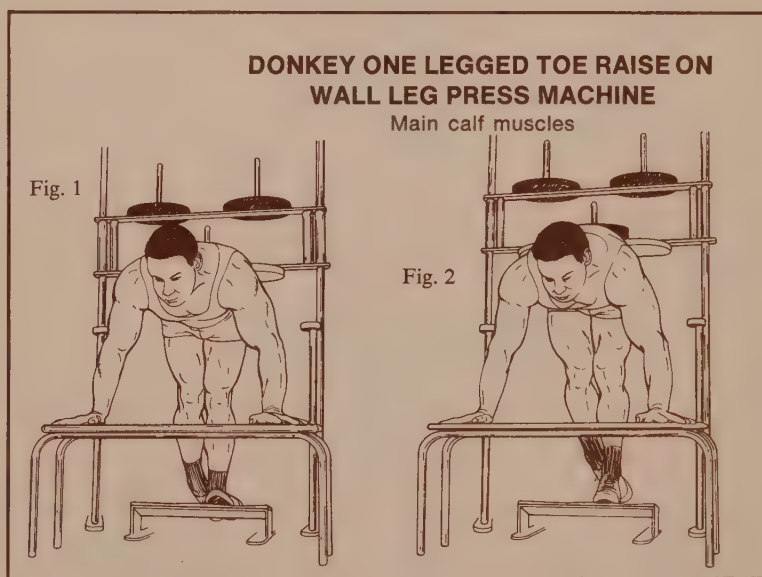
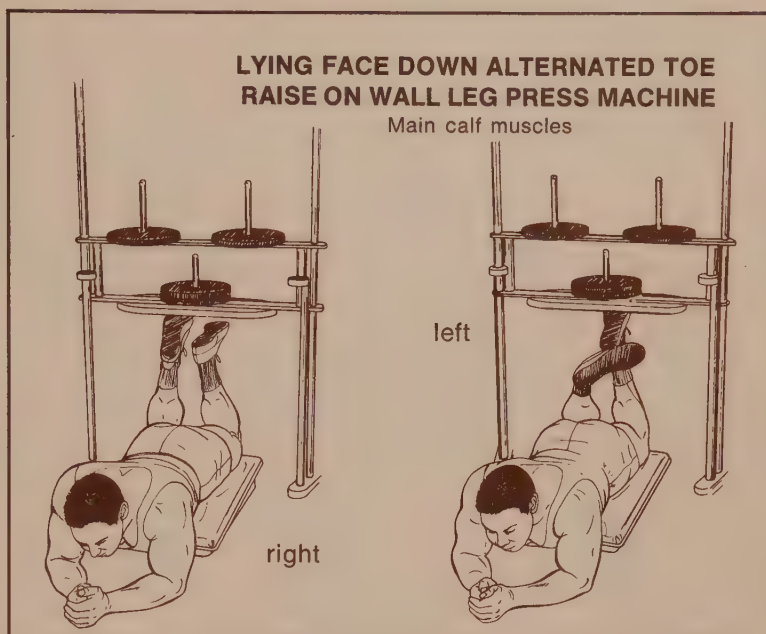
the floor when they are bent at the knees and the balls of your feet are placed under the foot pad. Press your toes upward and have your training partner release the safety stops. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect your main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Donkey One Legged Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about thirty-six inches away. Back into the machine and bend down and place the foot pad of the wall leg press on your lower back and hips. Place the ball of your right foot on the raised platform and position your left foot behind and against your right heel. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heels in, it will affect your inner calf more. If you keep your foot straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

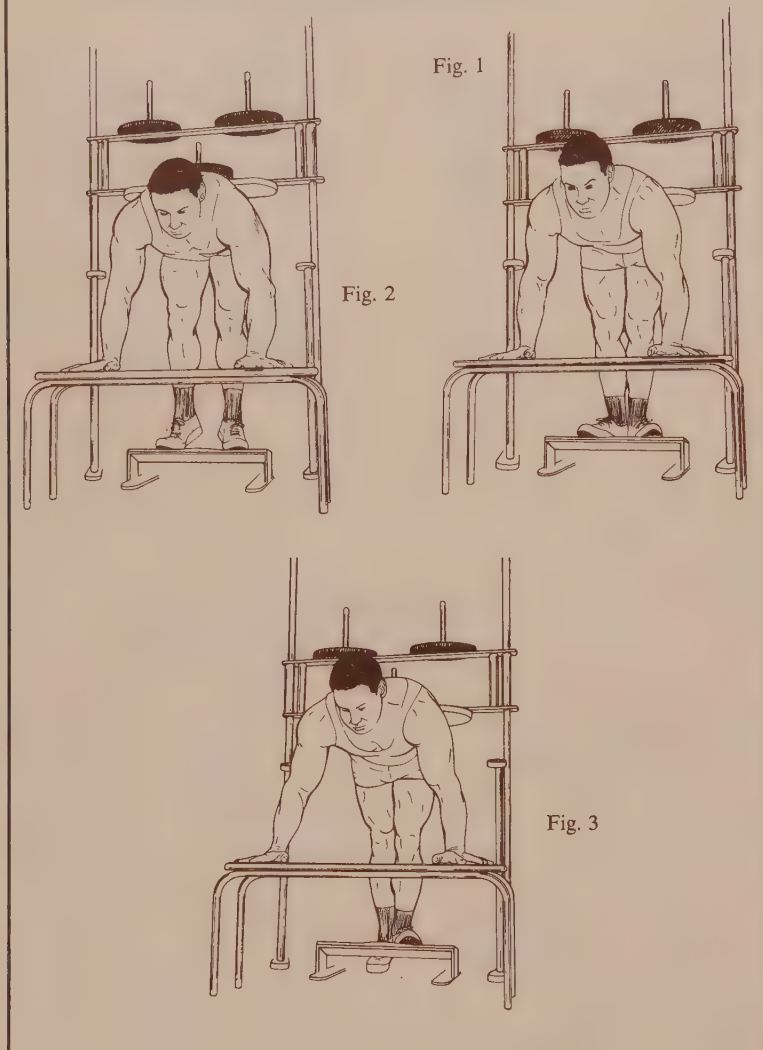
▲ Donkey Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about thirty-six inches away. Back into the machine and bend down and place the foot pad of the wall leg press on your lower back and hips. Place the balls of your feet on the raised plat-



DONKEY NEGATIVE RESISTANCE TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



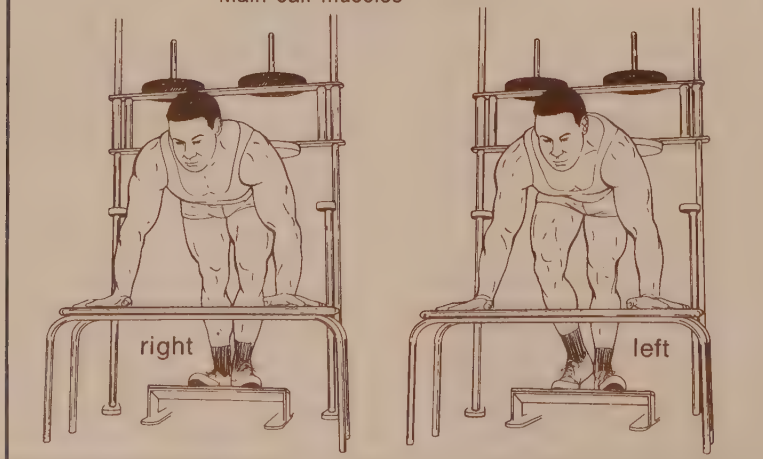
form and straighten your legs locking your knees while your upper back is parallel and you are supporting your upper body with your arms by having your hands resting on the bench in front and your elbows locked. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out it will affect the outside of the calf more.

■ Donkey Negative Resistance Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about thirty-six inches away. Back into the machine and bend down and place the foot pad of the wall leg press on your lower back and hips. Place the balls of your feet on the raised platform and straighten your legs locking your knees while your upper back is parallel and you are supporting your upper body with your arms by having your hands resting on the bench in front and your elbows locked. Inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

DONKEY ALTERNATED TOE RAISE ON WALL LEG PRESS MACHINE

Main calf muscles



▲ Donkey Alternated Toe Raise on Wall Leg Press Machine

Remove the back support pad from under a wall leg press machine and place a thick board or raised platform on the floor directly under the foot pad. Put a flat bench in front of the machine about thirty-six inches away. Back into the machine and bend down and place the foot pad of the wall leg press on your lower back and hips. Place the balls of your feet on the raised platform and straighten your legs locking your knees

while your upper back is parallel and you are supporting your upper body with your arms by having your hands resting on the bench in front and your elbows locked. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Lower Pad Toe Raise on Sled Leg Press Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then return your feet to the furthest back position you comfortably can and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Lower Pad One Legged Toe Raise on Sled Leg Press Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Do the prescribed number of repetitions with your right foot and then change the pressure over to your left foot repeating the same number of repetitions.

SEATED LOWER PAD TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles

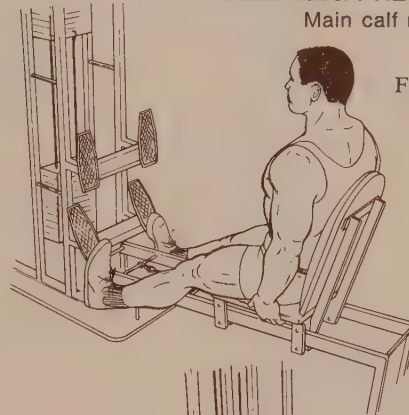


Fig. 1

Fig. 2



SEATED LOWER PAD ONE LEGGED TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles

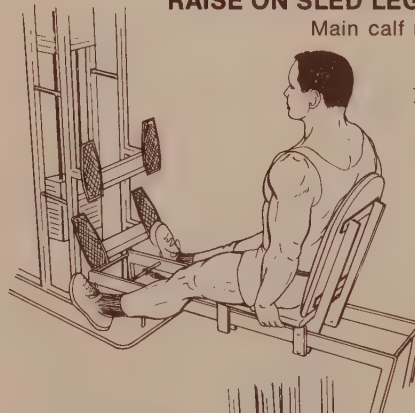


Fig. 1

Fig. 2



SEATED NEGATIVE RESISTANCE LOWER PAD TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles

Fig. 1

Fig. 2

Fig. 3

SEATED LOWER PAD ALTERNATED TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles

right

left

If you turn your toes out and heel in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Seated Negative Resistance Lower Pad Toe Raise on Sled Leg Press Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out as the seat moves backward until your legs are straight and your knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to the furthest back position you comfortably can and exhale. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to the furthest back position you comfortably can. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Lower Pad Alternated Toe Raise on Sled Leg Press Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two lower pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Now inhale and press your left foot forward as far as you comfortably can. Hold this position for a short period and return your foot to the furthest back comfortable position and exhale. Continue go-

ing back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Top Pad Alternated Toe Raise on Sled Leg Press Machine

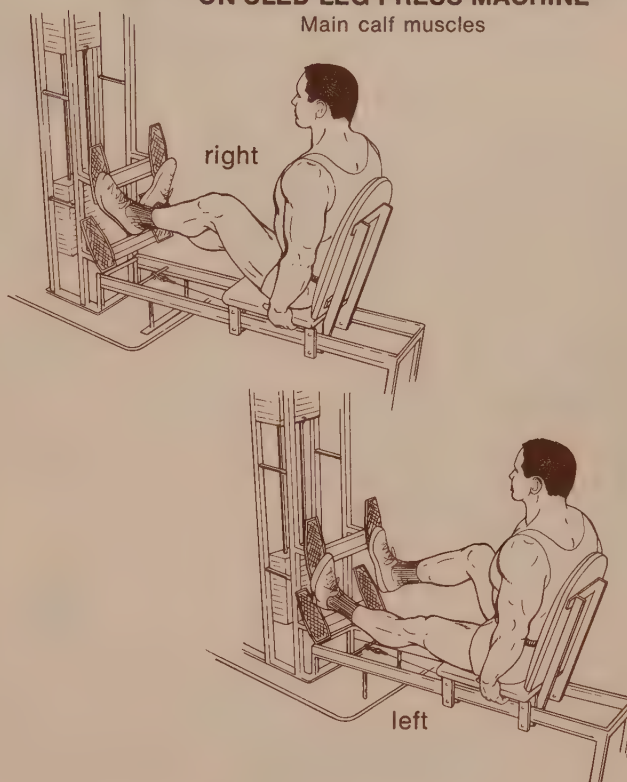
Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Now inhale and press your left foot forward as far as you comfortably can. Hold this position for a short period and return your foot to the furthest back comfortable position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Top Pad Toe Raise on Sled Leg Press Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then return your feet to the furthest back position you comfortably can and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

SEATED TOP PAD ALTERNATED TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles



SEATED TOP PAD TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles

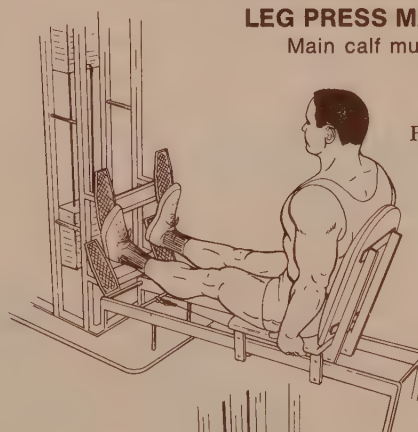
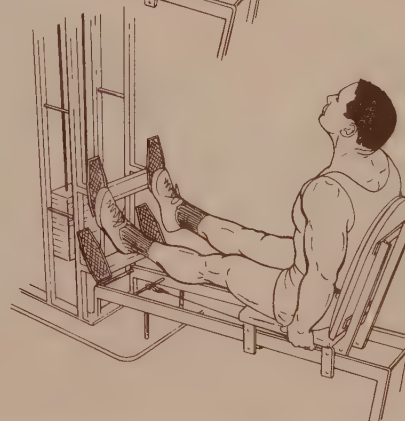


Fig. 1

Fig. 2



SEATED NEGATIVE RESISTANCE TOP PAD TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles

Fig. 1

Fig. 2

Fig. 3

■ Seated Negative Resistance Top Pad Toe Raise on Sled Leg Press Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stack out as the seat moves backward until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to the furthest back position you comfortably can and exhale. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to the furthest back position you comfortably can. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your feet straight, it will affect your main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Top Pad One Legged Toe Raise on Sled Leg Press Machine

Sit on the back supported chair and hold on to the sides of the seat under your buttocks. Place the balls of your feet on the two top pads provided and press the weight stacks out as the seat moves backward until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Do the prescribed number of repetitions with your right foot and then change the pressure over to your left foot repeating the same number of repetitions. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

SEATED TOP PAD ONE LEGGED TOE RAISE ON SLED LEG PRESS MACHINE

Main calf muscles

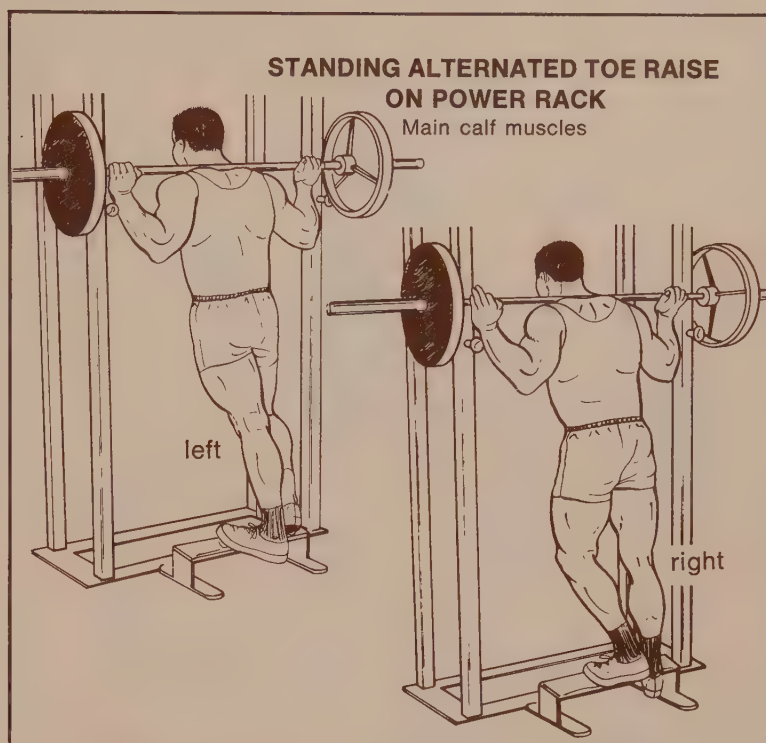
Fig. 1

Fig. 2

▲ Standing Alternated Toe Raise on Power Rack

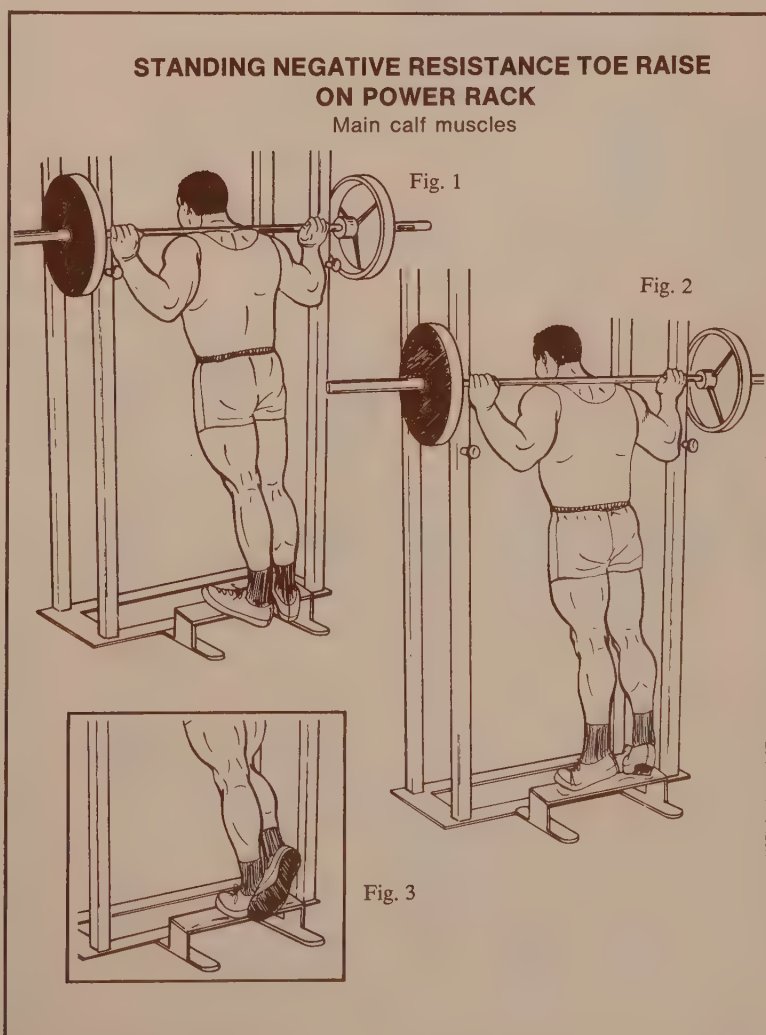
Place a barbell on the pegs of a power rack

just below shoulder height. Position a thick board, or raised platform, directly under the barbell. Place the barbell on your upper back keeping the bar against the power rack throughout the exercise. Stand erect with your back straight, head up and legs straight with your knees locked as you stand with the balls of your feet on the board. Do not let your hips move backward or forward while performing the exercise. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.



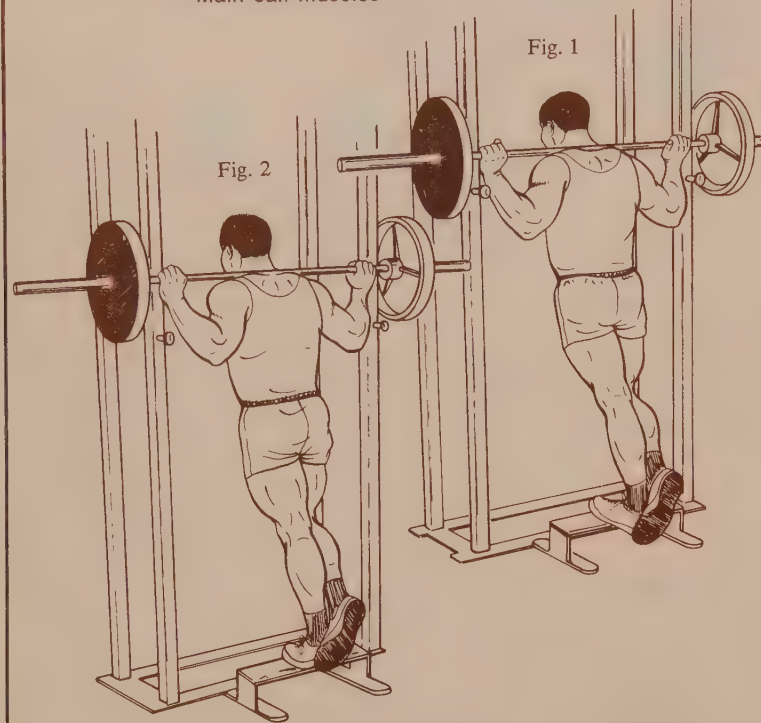
■ Standing Negative Resistance Toe Raise on Power Rack

Place a barbell on the pegs of a power rack just below shoulder height. Position a thick board, or raised platform, directly under the barbell. Place the barbell on your upper back keeping the bar against the power rack throughout the exercise. Stand erect with your back straight, head up and legs straight with your knees locked as you stand with the balls of your feet on the board. Do not let your hips move backward or forward while performing the exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of the barbell to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of the barbell to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect your inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.



STANDING ONE LEGGED TOE RAISE ON POWER RACK

Main calf muscles

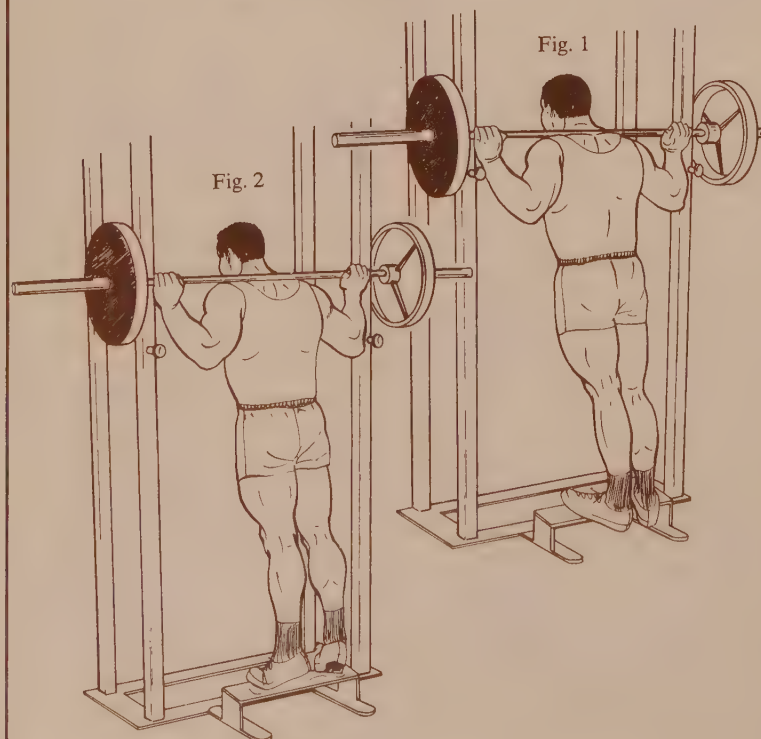


■ Standing One Legged Toe Raise on Power Rack

Place a barbell on the pegs of a power rack just below shoulder height. Position a thick board, or raised platform, directly under the barbell. Place the barbell on your upper back keeping the bar against the power rack throughout the exercise. Stand erect with your back straight, head up and legs straight with your knees locked as you stand with the ball of your right foot on the board. Place your left foot against the rear of your right heel. Inhale and raise up on your toe as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your foot straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

STANDING TOE RAISE ON POWER RACK

Main calf muscles



▲ Standing Toe Raise on Power Rack

Place a barbell on the pegs of a power rack just below shoulder height. Position a thick board, or raised platform, directly under the barbell. Place the barbell on your upper back keeping the bar against the power rack throughout the exercise. Stand erect with your back straight, head up and legs straight with your knees locked as you stand with the balls of your feet on the board. Do not let your hips move backward or forward while performing the exercise. Inhale and raise up on your toes as high as possible. Hold this position a short period and return to starting position and exhale. Be sure to keep the bar against the rack. If you turn your toes out and heels in, it will affect your inner calf more. If you keep your feet straight, it will affect your main calf muscle more. If you turn your toes in and heels out, it will affect the outside of your calf more.

▲ Standing Toe Raise on Hack Thrust Machine

(The type of hack thrust machine you use will determine how you position yourself for this exercise. Some hack thrust machines are designed in such a way that your shoulders support the sled. Others are designed in such a way that your arms support the sled. Regardless, the basic movement is the same.) Position your shoulders

under the extended portion of a hack thrust machine or grasp the bars on each side of the sled with both hands keeping your arms straight. Stand on the slanted platform while facing into the machine. Stand erect with your back straight, head up and legs locked during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position, dropping your heels as low as possible without having them touch the platform and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Standing Negative Resistance Toe Raise on Hack Thrust Machine

(The type of hack thrust machine you use will determine how you position yourself for this exercise. Some hack thrust machines are designed in such a way that your shoulders support the sled. Others are designed in such a way that your arms support the sled. Regardless, the basic movement is the same.) Position your shoulders under the extended portion of a hack thrust machine or grasp the bars on each side of the sled with both hands keeping your arms straight. Stand on the slanted platform while facing into the machine. Stand erect with your back straight, head up and legs locked during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

STANDING TOE RAISE ON HACK THRUST MACHINE

Main calf muscles

Fig. 1

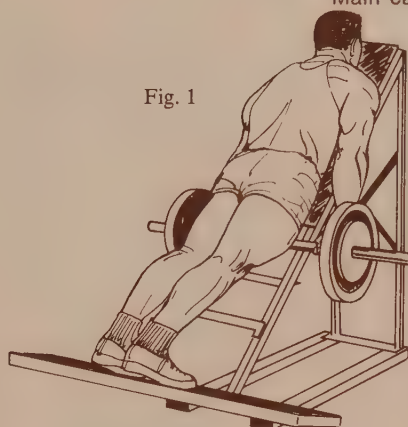
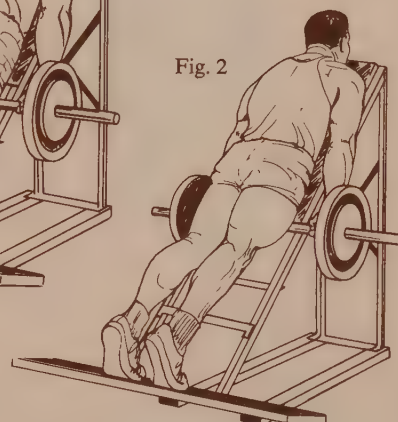


Fig. 2



STANDING NEGATIVE RESISTANCE TOE RAISE ON HACK THRUST MACHINE

Main calf muscles

Fig. 1

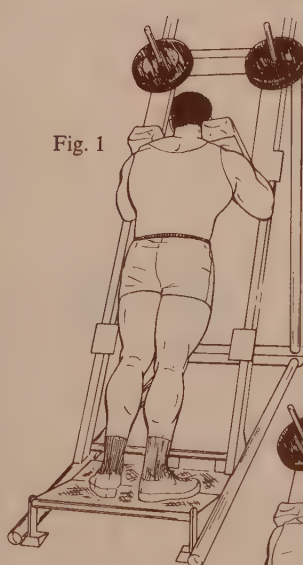


Fig. 2

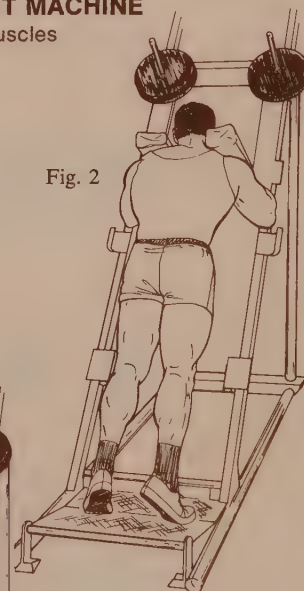
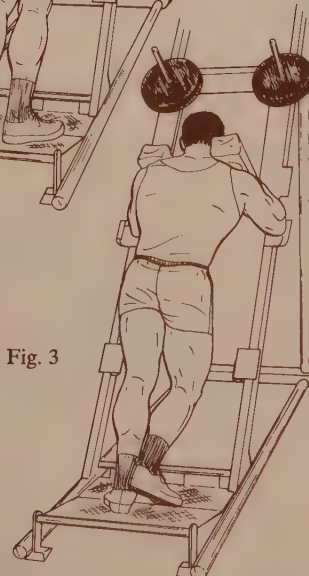


Fig. 3

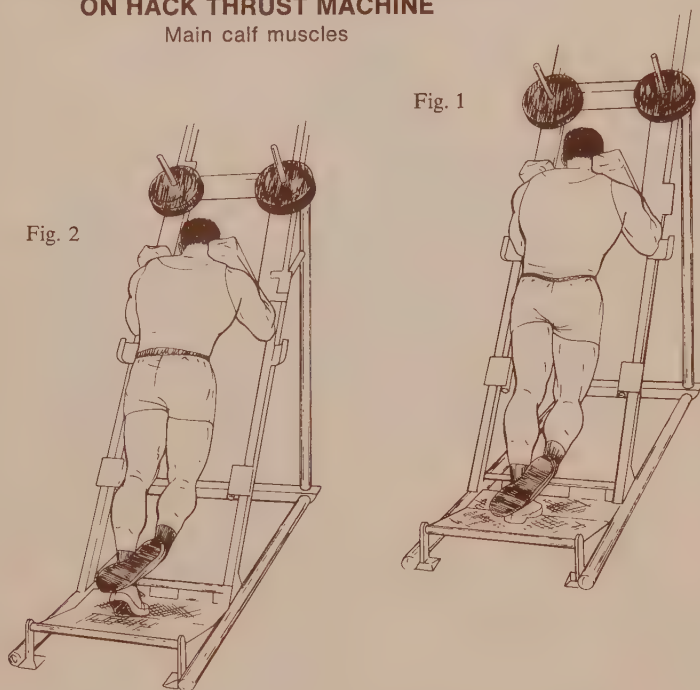


STANDING ONE LEGGED TOE RAISE ON HACK THRUST MACHINE

Main calf muscles

Fig. 1

Fig. 2



■ Standing One Legged Toe Raise on Hack Thrust Machine

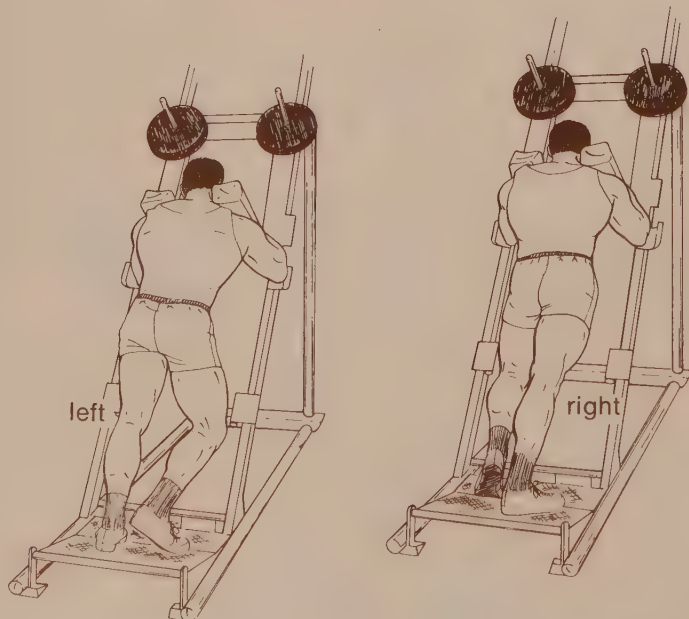
(The type of hack thrust machine you use will determine how you position yourself for this exercise. Some hack thrust machines are designed in such a way that your shoulders support the sled. Others are designed in such a way that your arms support the sled. Regardless, the basic movement is the same.) Position your shoulders under the extended portion of a hack thrust machine or grasp the bars on each side of the sled with both hands keeping your arms straight. Stand erect and shift all the weight of the machine on to your right leg while you place your left foot against the rear of your right heel. Keep your back straight, head up and leg locked out during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heel out, it will affect the outside of the calf more.

STANDING ALTERNATED TOE RAISE ON HACK THRUST MACHINE

Main calf muscles

left

right



▲ Standing Alternated Toe Raise on Hack Thrust Machine

(The type of hack thrust machine you use will determine how you position yourself for this exercise. Some hack thrust machines are designed in such a way that your shoulders support the sled. Others are designed in such a way that your arms support the sled. Regardless, the basic movement is the same.) Position your shoulders under the extended portion of a hack thrust machine or grasp the bars on each side of the sled with both hands keeping your arms straight. Stand on the slanted platform while facing into the machine. Stand erect with your back straight, head up and legs locked during the entire exercise. Do not let your hips move backward and forward while performing the exercise. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do not let your heels touch the plat-

form if you can. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Alternated Toe Raise on Moon Bench Leg Press Machine

Sit on the seat of a Moon Bench leg press machine and slide your buttocks to the front of the bench. Place your hands under your buttocks and hold on to the end of the bench for support. Place the balls of your feet on the foot pad and press the weight stack up until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Now inhale and press your left foot forward as far as you comfortably can. Hold this position for a short period and return your foot to the furthest back position you comfortably can and exhale. Continue going back and forth from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Seated Toe Raise on Moon Bench Leg Press Machine

Sit on the seat of a Moon Bench leg press machine and slide your buttocks to the front of the bench. Place your hands under your buttocks and hold on to the end of the bench for support. Place the balls of your feet on the foot pad and press the weight stack up until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then return your feet to the furthest back position you comfortably can and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect your main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

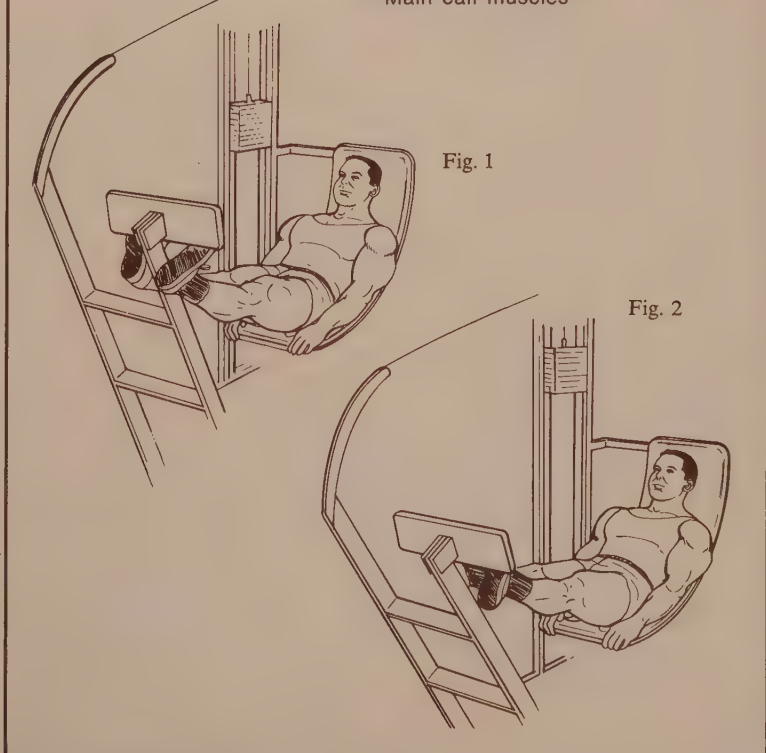
SEATED ALTERNATED TOE RAISE ON MOON BENCH LEG PRESS MACHINE

Main calf muscles



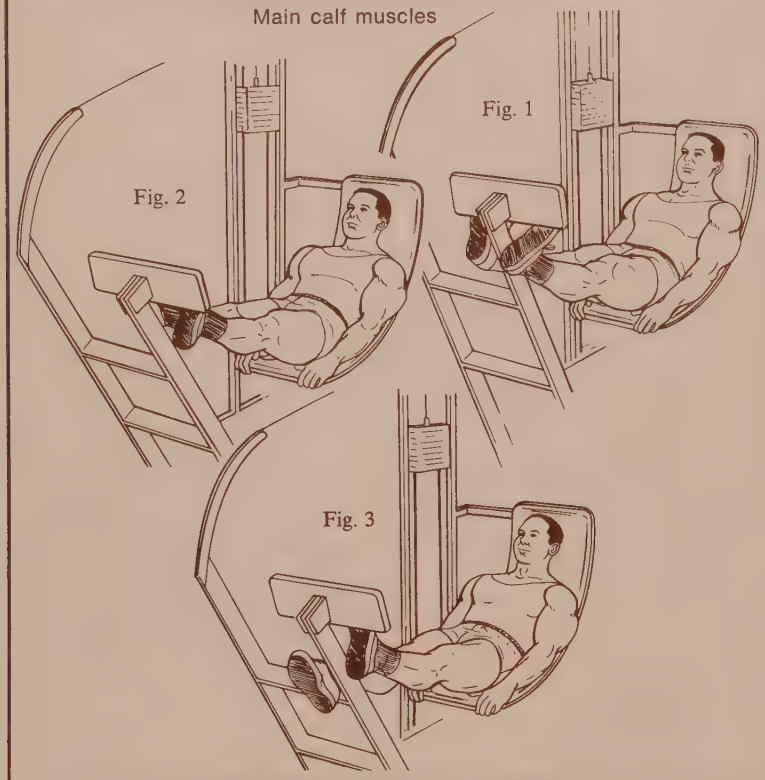
SEATED TOE RAISE ON MOON BENCH LEG PRESS MACHINE

Main calf muscles



SEATED NEGATIVE RESISTANCE TOE RAISE ON MOON BENCH LEG PRESS MACHINE

Main calf muscles

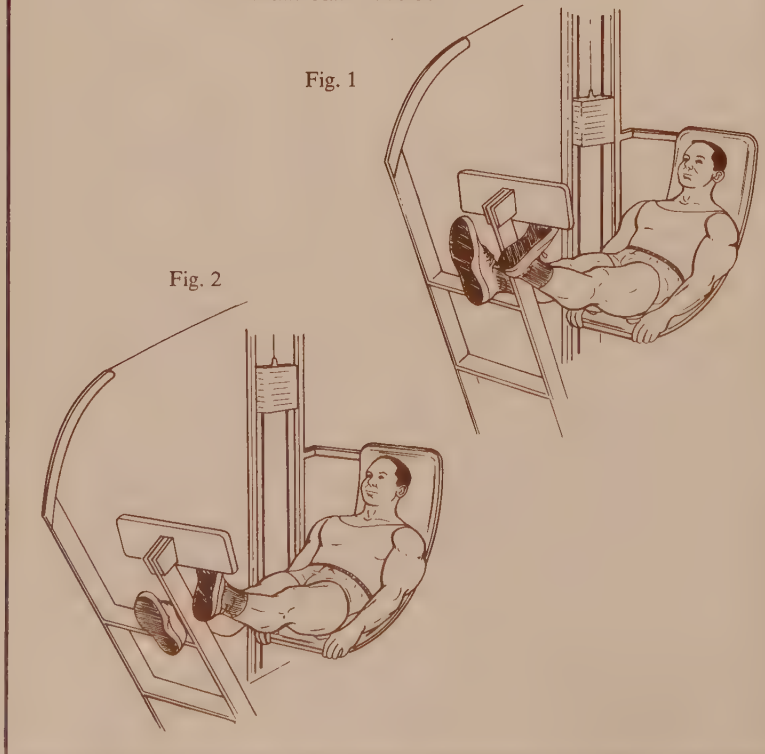


■ Seated Negative Resistance Toe Raise on Moon Bench Leg Press Machine

Sit on the seat of a Moon Bench leg press machine and slide your buttocks to the front of the bench. Place your hands under your buttocks and hold on to the end of the bench for support. Place the balls of your feet on the foot pad and press the weight stack up until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to the furthest back position you comfortably can and exhale. Inhale and press your feet forward as far as you comfortably can. Hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to the furthest back position you comfortably can. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect your main calf muscle more. If you turn your toes in and heels out, it will affect the outside of your calf more.

SEATED ONE LEGGED TOE RAISE ON MOON BENCH LEG PRESS MACHINE

Main calf muscles



▲ Seated One Legged Toe Raise on Moon Bench Leg Press Machine

Sit on the seat of a Moon Bench leg press machine and slide your buttocks to the front of the bench. Place your hands under your buttocks and hold on to the end of the bench for support. Place the balls of your feet on the foot pad and press the weight stack up until your legs are straight and knees lock. Keep your legs in this position throughout the exercise. Inhale and press your right foot forward as far as you comfortably can. Hold this position for a short period and then return your foot to the furthest back position you comfortably can and exhale. Do the prescribed number of repetitions with your right foot and then change the pressure over to your left foot repeating the same number of repetitions. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of your calf more.

■ Standing One Legged Toe Raise on Ram Thrust Machine

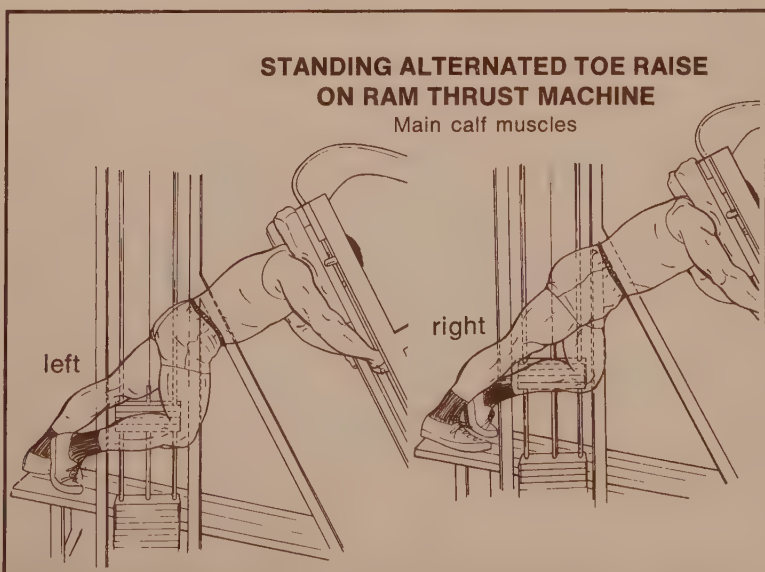
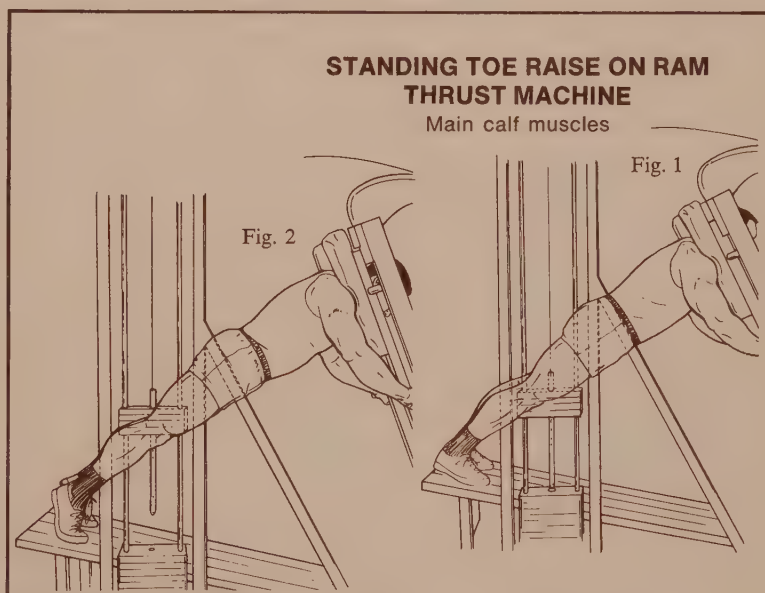
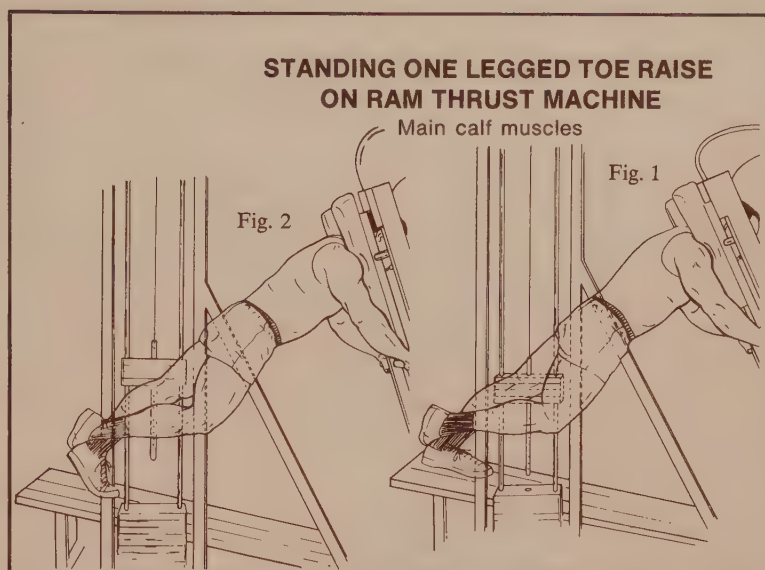
Stand face forward on the platform of a ram thrust. Squat down and place your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform. Do not let your hips move backward and forward while performing the exercise. Shift all the weight of the machine on to your right leg while you place your left foot behind and against your right heel. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right leg and then change positions to the left leg repeating the same number. If you turn your toes out and heel in, it will affect the inner calf more. If you keep your foot straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Standing Toe Raise on Ram Thrust Machine

Stand face forward on the platform of the ram thrust. Squat down and place your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform. Do not let your hips move backward and forward while performing this exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and return to starting position and exhale. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

▲ Standing Alternated Toe Raise on Ram Thrust Machine

Stand face forward on the platform of a ram thrust. Squat down and place your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform. Do not let your hips move backward and forward while performing this exercise. Inhale and raise up on your right toes as high as possible. Hold this position for a short period and return to starting position and exhale. Now raise up on



STANDING NEGATIVE RESISTANCE TOE RAISE ON RAM THRUST MACHINE

Main calf muscles

Fig. 1

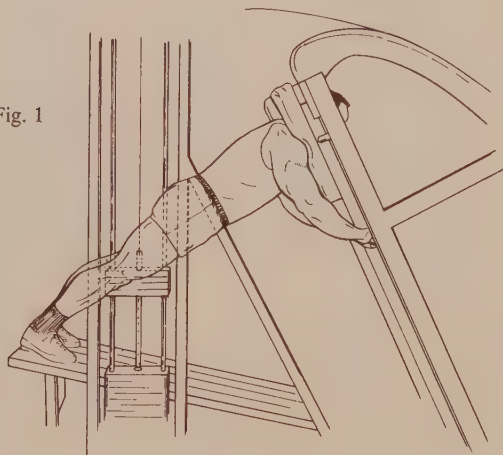


Fig. 2

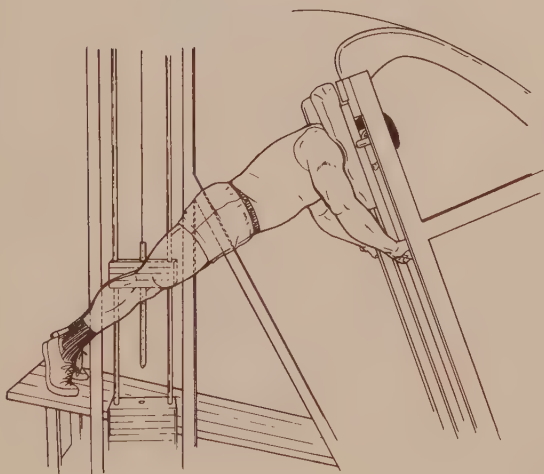
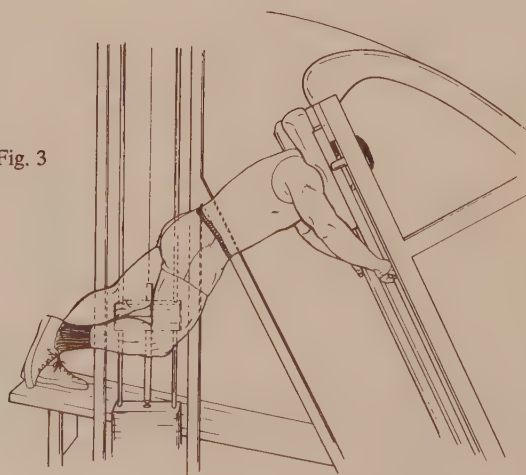


Fig. 3



your left toes as high as possible. Hold this position for a short period and return to starting position and exhale. Continue going from right foot to left foot until the prescribed number of repetitions are completed. If you turn your toes in and heels out, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

■ Standing Negative Resistance Toe Raise on Ram Thrust Machine

Stand face forward on the platform of a ram thrust. Squat down and place your shoulders under the shoulder pads. Stand erect raising the weight stack. Keep your back straight, head up and feet planted firmly on the platform. Do not let your hips move backward and forward while performing the exercise. Inhale and raise up on your toes as high as possible. Hold this position for a short period and then shift ALL the weight of the machine to your right leg causing your right calf muscle to carry the load as you return to starting position and exhale. Inhale and raise up on your toes again and hold this position for a short period and then shift ALL the weight of the machine to your left leg causing your left calf to carry the load as you return to starting position and exhale. Continue going back and forth from right leg to left leg until the prescribed number of repetitions are completed. If you turn your toes out and heels in, it will affect the inner calf more. If you keep your feet straight, it will affect the main calf muscle more. If you turn your toes in and heels out, it will affect the outside of the calf more.

Introduction to Neck Section

The neck is a dynamic weight-bearing structure which supports the head. It consists of seven cervical vertebrae which can perform almost any basic fundamental movement of motion. These movements are noted in almost any sport or activity in athletics. Probably the most interesting aspect of neck motion is the method by which movement of the neck takes place. The neck cannot flex or extend by the contraction of a single muscle alone. Both of the major muscle groups in the front of the neck would have to contract to flex the neck and both of the major muscle groups in the back of the neck would have to contract simultaneously in order to achieve neck extension. In order for the neck to flex or bend to the left, the front and back left neck muscles would have to contract. But if the neck were to bend in an oblique angle only one primary muscle group would contract.

The importance of the neck cannot be over-emphasized as it protects and helps maintain stability of the cervical spine. Weakness of the neck increases postural fatigue and contributes to an increased incident of injury. Weakness can contribute to contracture or shortening of the muscle group on the opposite side of the neck, leading to such problems as "wry neck." This stress syndrome is created as a result of the inability of the sternocleidomastoideus to maintain constant pressure on the spine, therefore causing the face to turn to the left and the head to tilt to the right, if the right sternocleidomastoideus is in contracture or severe spasm.

Another muscle group found often to indicate postural and functional instability is the upper trapezius; a dynamic muscle that, if balance is not properly maintained, can lead to instability of the head, neck and upper shoulder. Such a stress syndrome is usually easily recognized as a head tilt away from the side of the weakness or a raised shoulder and head tilt toward the side of spasm. These imbalances can lead to a decreased function of movement of the arm away from the center of the body and interfere with the efficiency of the shoulder to flex at shoulder level. Weakness of the upper trapezius may also be noted as a decreased ability to raise the head in a face-down lying position.

The neck, like the trunk, has many supportive and

muscular functions. They are all related to one another, and all affect each other if improper stability or loss of muscle balance and improper co-ordination occur. The result of neck injury whether traumatic or a result of chronic stress can be extremely limiting and, therefore, must be prevented if possible.

Injuries to the neck can result from a blow, fall, impact or undue stress frequently causing the neck to be forced beyond a normal range of motion. Almost any type of athletic activity can predispose the athlete toward possible injury if the head and neck are forced downward toward the chest, and cervical compression may result. If the head and neck are pushed backward, hyper-extension or fracture may result. If the head and neck are turned rapidly to either side or a whipping action movement occurs, multiple cervical injuries including fracture, sprains, strains, contusions, dislocations, subluxations, or spinal cord and/or nerve-root injury may result.

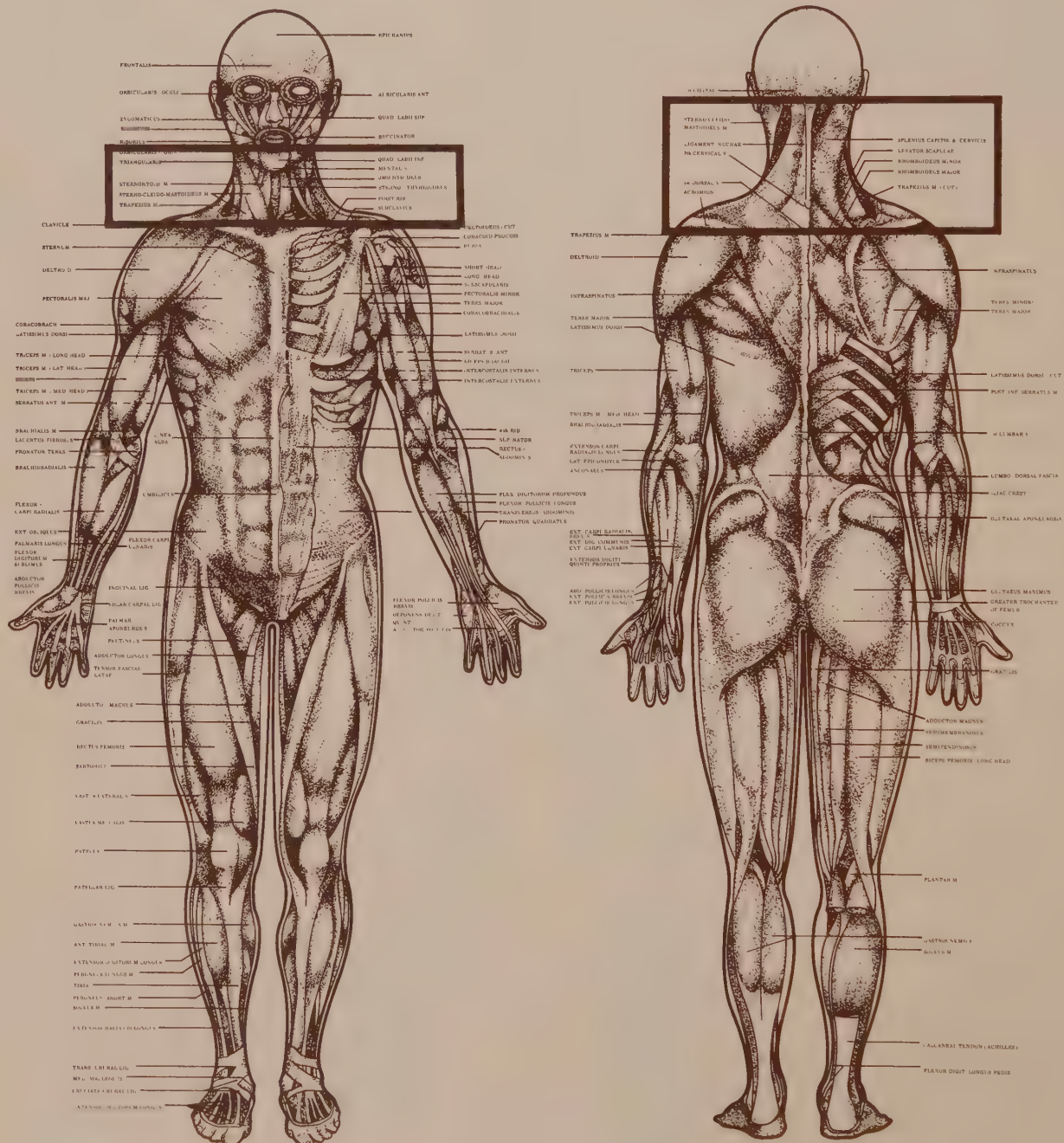
Many times the best way to prevent an injury is to prepare your body for the trauma it may have to sustain. That is: almost all athletes who are subject to contact sports should weight train. Weight training helps to build muscular mass in order to absorb the shock of impact and, therefore, decrease the rate of injury. It should be recognized that every sport activity requires a different attitude of body development. If an athlete is a football player, wrestler, judoist, or boxer, he will benefit more from an upper body or neck training program than athletes of noncontact sports, as his need is greater to develop these areas in order to protect his spine. However, if the baseball, basketball and tennis players strengthen their neck and upper body, they will find an increased level of endurance. Weight training is a specialized field and the athlete should not become discouraged if a weight training program does not seem to be benefiting his immediate performance. Your body must have time to adapt to its new environment and many times that means the angles of your levers — arms, legs, etc. — will slightly change. Therefore, concentration and technical evaluation from your coach or trainer may reinforce your overall developmental program, enhancing your performance to levels of greater achievement.

Neck section



Pearl's neck and calf measurement were identical (19¼ inches) at the time of this photo.

Muscle Anatomy



Anterior View

Posterior View

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

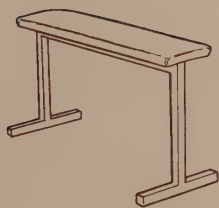
The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

EQUIPMENT NEEDED FOR NECK SECTION



High Flat Bench



Flat Bench



Stool



Chair



Training Partner



Towel



Head Harness



Rubber Strap

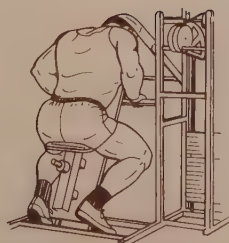


Barbell Plate

Neck Strap

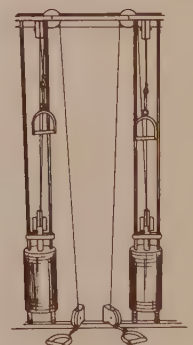


Neck Station on Universal



Paramount Neck Machine

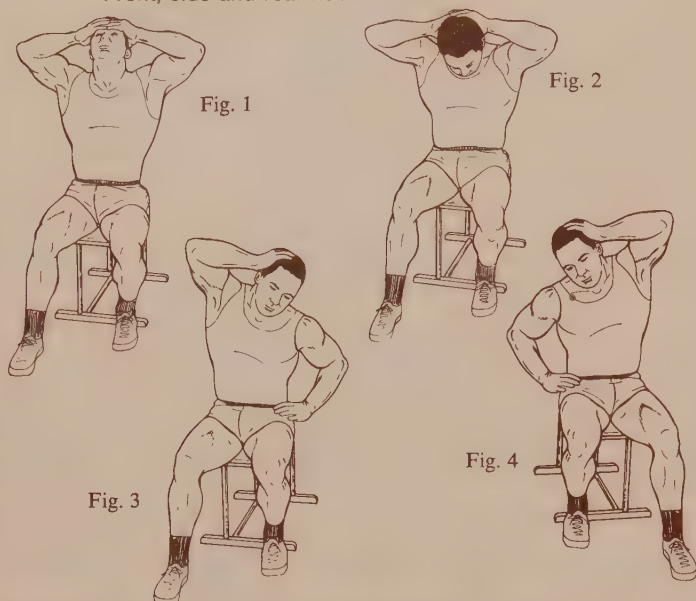
High Wall Pulley



Low Wall Pulley

SEATED FREE HAND NECK RESISTANCE

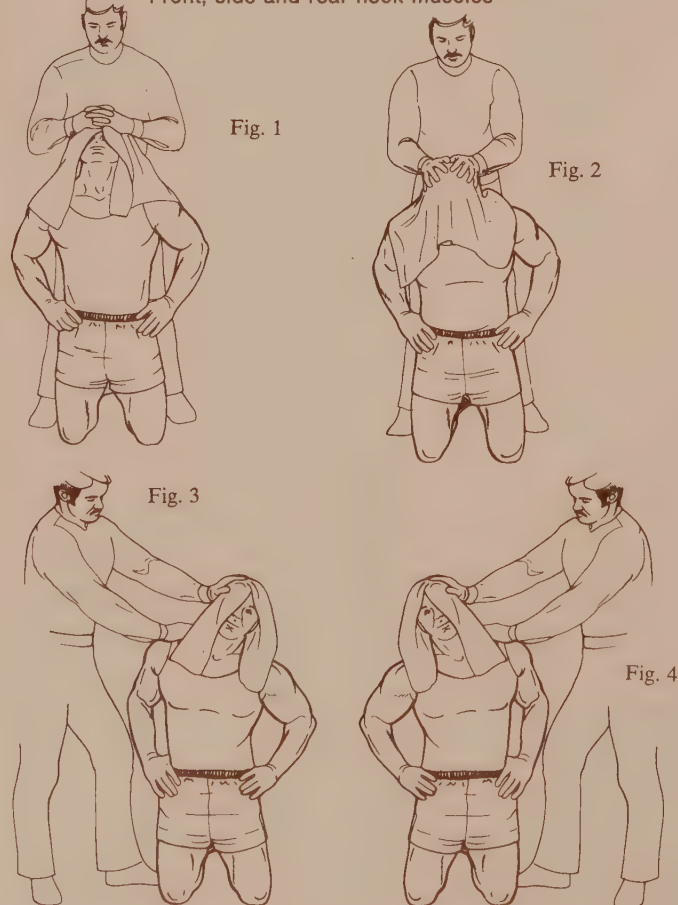
Front, side and rear neck muscles

**▲ Seated Free Hand Neck Resistance**

Sit on a flat bench with your back straight and head up. Place both of your hands directly on your forehead. Inhale and push your head downward in a semicircular motion as far as you comfortably can as you resist your neck muscles with your arms. At the low position, push your head upward and back in a semicircular motion as far as you comfortably can, resisting your neck muscles with your arms. Do the prescribed number of repetitions and then place both hands on the back of your head and repeat the movement. Then place the palm of your right hand on the right side of your head and resist from side to side until the prescribed number of repetitions are complete. Then change positions to the left side to finish the exercise. This movement may be performed in a standing, seated, kneeling, or lying position.

KNEELING BUDDY SYSTEM NECK RESISTANCE

Front, side and rear neck muscles

**■ Kneeling Buddy System Neck Resistance**

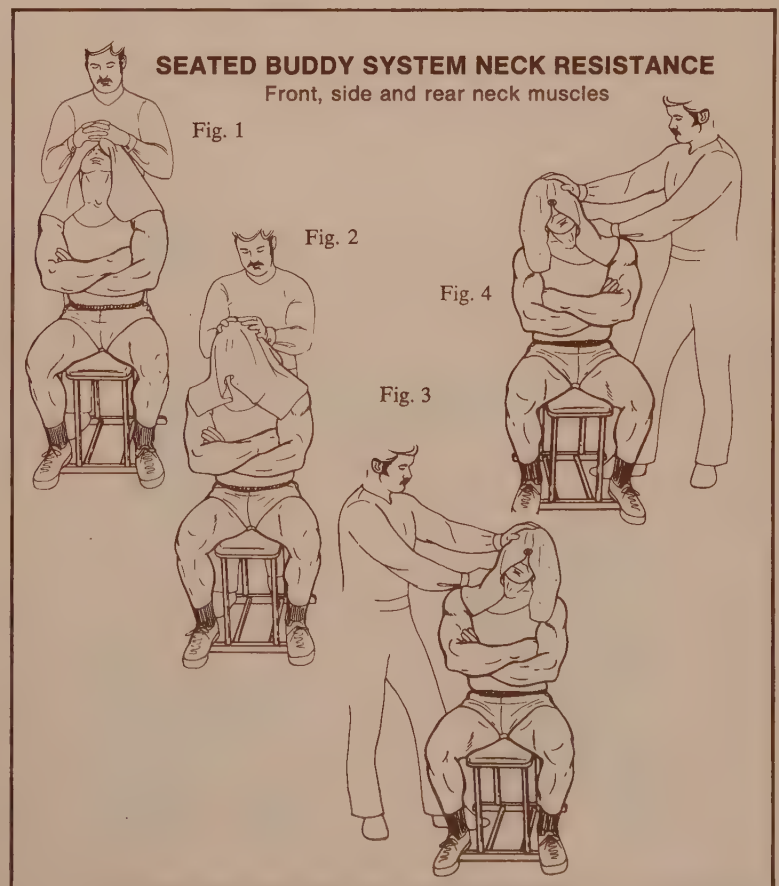
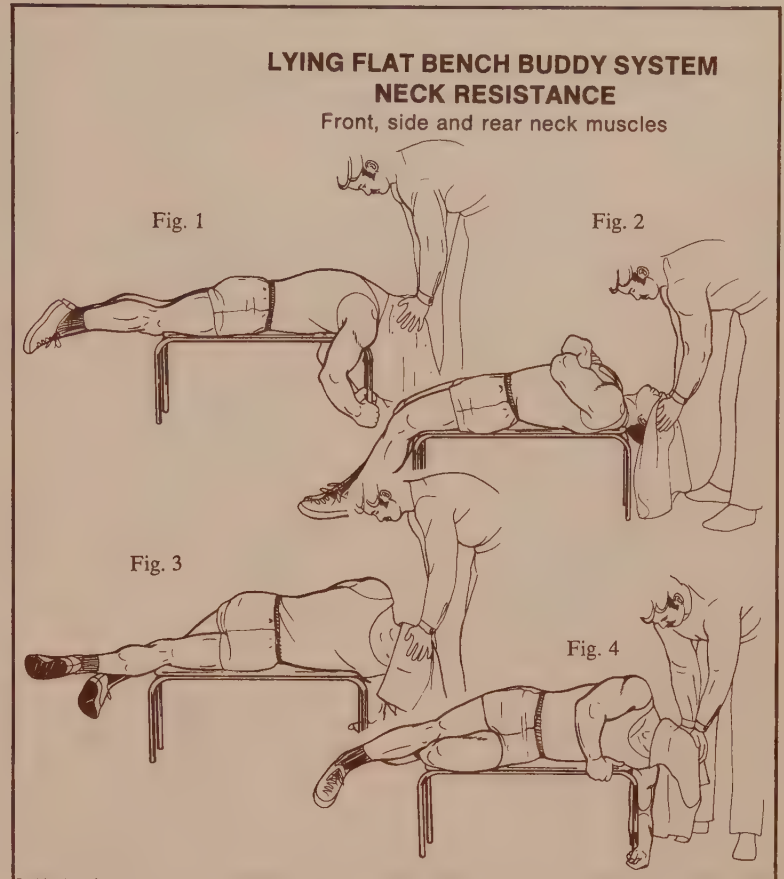
Kneel down on the floor and position yourself in a comfortable position. Place your hands on your hips. Keep your back straight and your head up during the exercise. Have your training partner place a towel over your head to help eliminate any unnecessary slipping of his hands as he assists you in the exercise. Have him stand to the rear of you with both of his hands placed directly on your forehead. Inhale and pull your head downward as your training partner causes the resistance for the exercise. He will then smoothly and evenly pull your head backward to a comfortable position while the muscles in the front of your neck cause the resistance. Do the prescribed number of repetitions in this position and then have him shift his hands directly to the back of your head and perform the same smooth-even movement frontward and backward. After working the front and rear, he should then stand to your right side and place his hands directly on the left side of your head. The movement will then go from side to side. After the prescribed number of repetitions are completed, he should finish the exercise by standing to your left side with his hands directly on the right side of your head doing the same number of repetitions. This exercise must be done in a smooth, concentrated manner with no jerking movements. Do not let the person giving the resistance pull your head too far in any direction to cause any discomfort. It is not necessary.

■ Lying Flat Bench Buddy System Neck Resistance

Lie face down on a flat bench so the top of your shoulders are about even with the end of the bench. Have your training partner place a towel over your head to help eliminate any unnecessary slipping of his hands as he assists you in the exercise. Have him stand to the rear of you with both of his hands placed directly on the back of your head. Inhale and raise your head upward in a semicircular motion as high as you comfortably can. Your training partner will cause the resistance for the exercise by giving an even pressure with his hands as your head is raised. He will then smoothly and evenly push your head downward to a comfortable position as your neck muscles cause the resistance. Do the prescribed number of repetitions in this manner and then lie on the bench in a supine position with the top of your shoulders even with the end of the bench and perform the same upward and downward movement with your training partner's hands placed directly on your forehead. From this position shift to your right side with the top of your left shoulder at the end of the bench and perform the same upward and downward movement with your training partner's hands placed directly on the right side of your head. Finish the exercise by shifting to your left side and perform the same number of repetitions. Do not let the person giving the resistance push your head too far in any direction to cause any discomfort. It is not necessary.

■ Seated Buddy System Neck Resistance

Sit at the end of a flat bench. Either cross your hands or grasp the end of the bench to support your upper body. Keep your back straight and head up during the exercise. Have your training partner place a towel over your head to help eliminate any unnecessary slipping of his hands as he assists you in the exercise. Have him stand to the rear of you and straddle the bench. With both of his hands placed directly on your forehead, inhale and pull your head downward as your training partner causes the resistance for the exercise. He will then smoothly and evenly pull your head backward to a comfortable position while the muscles in the front of your neck cause the resistance. Do the prescribed number of repetitions in this position and then have him shift his hands directly to the back of your head and perform the same smooth-



STANDING TOWEL NECK RESISTANCE

Front, side and rear neck muscles

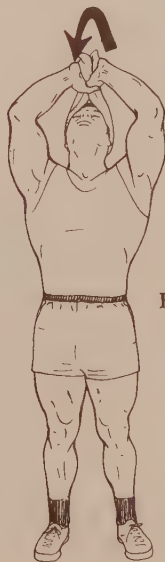


Fig. 1



Fig. 2

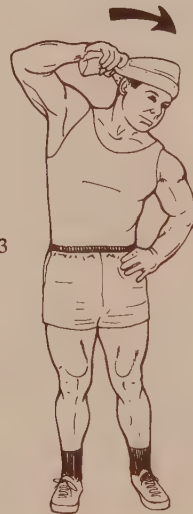


Fig. 3

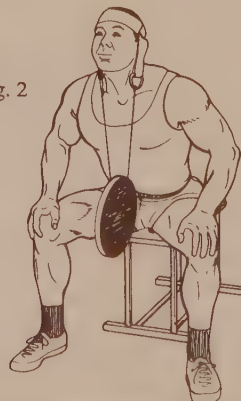
SEATED HEAD HARNESS BARBELL PLATE NECK RESISTANCE

Side and rear neck muscles

Fig. 1



Fig. 2



even movement frontward and backward. After working the front and the rear, he should then stand to your right side and place his hands directly on the left side of your head. The movement will then go from side to side. After the prescribed number of repetitions are completed he should finish the exercise by standing to your left side with his hands directly on the right side of your head doing the same number of repetitions. This exercise must be done in a smooth, concentrated manner with no jerking movements. Do not let the person giving the resistance pull your head too far in any direction to cause any discomfort. It is not necessary.

▲ Standing Towel Neck Resistance

Stand erect with your back straight and head up. Roll up a towel long ways and place the middle of the rolled up towel directly against the back of your head. Grasp each end of the towel with your hands, keeping them directly in front of your face and forehead level. Draw your head back to the furthest comfortable position. Inhale and pull your head forward to the lowest comfortable position by applying pressure with your arms against the towel. Resist this pressure with your neck muscles. At the low position, pull your head upward and back in a semicircular motion as far as you comfortably can, again resisting your neck muscles by applying pressure with your arms via the towel. Do the prescribed number of repetitions and then shift the middle of the rolled up towel to the right side of your head, holding both ends of the towel with your left hand and resist from side to side until the prescribed number of repetitions are completed. Then change to the left side to finish the exercise. This movement may be performed in a standing, seated, kneeling, or lying position.

▲ Seated Head Harness Barbell Plate Neck Resistance

Place the desired amount of weight on the end of the rope, or chain, of a head harness. Put the head harness on your head and sit at the end of a flat bench. Lean slightly forward to keep the plate from rubbing against your body. Place your hands on your thighs or grasp the bench. Lower your head forward to the lowest possible comfortable position. Inhale and raise

your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Standing Head Harness Barbell Plate Neck Resistance

Place the desired amount of weight on the end of the rope, or chain, of a head harness. Put the head harness on your head with the weight hanging straight down in front of you. Stand erect but slightly forward to keep the plate from rubbing against your body. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Lying Head Harness Barbell Plate Neck Resistance

Place the desired amount of weight on the end of the rope, or chain, of a head harness. Put the head harness on your head with the weight hanging straight down in front of you. Lie face down on a flat bench so the top of your shoulders are about even with the end of the bench. The bench must be high enough so the plate can hang straight down and not rest on the floor. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

STANDING HEAD HARNESS BARBELL PLATE NECK RESISTANCE

Side and rear neck muscles



Fig. 1



Fig. 2

LYING HEAD HARNESS BARBELL PLATE NECK RESISTANCE

Side and rear neck muscles



Fig. 1

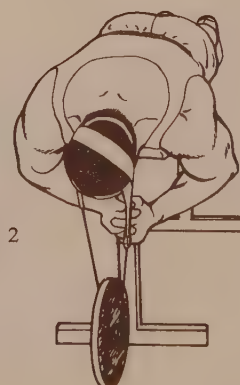


Fig. 2

KNEELING HEAD HARNESS BARBELL PLATE NECK RESISTANCE

Side and rear neck muscles

Fig. 1



Fig. 2



▲ Kneeling Head Harness Barbell Plate Neck Resistance

Place the desired amount of weight on the end of the rope, or chain, of a head harness. Put the head harness on your head with the weight hanging straight down in front of you. Kneel down until your buttocks is resting on your calves. Lean slightly forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

LYING FACE DOWN BARBELL PLATE NECK RESISTANCE

Rear neck muscles

Fig. 1



Fig. 2



▲ Lying Face Down Barbell Plate Neck Resistance

Lie face down on a flat bench with the top of your shoulders about even with the end of the bench. Place a flat barbell plate on the back of your head and hold it in place with your hands. Lower your head downward to the lowest possible comfortable position. Inhale and raise your head upward and back in a semicircular motion as high as you comfortably can. Continue raising and lowering your head until the prescribed number of repetitions are completed.

LYING SUPINE BARBELL PLATE NECK RESISTANCE

Front neck muscles

Fig. 1

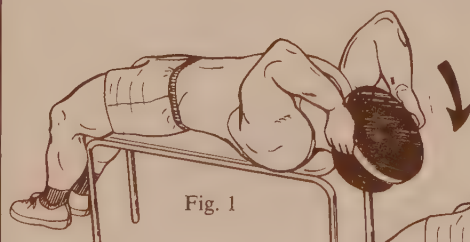
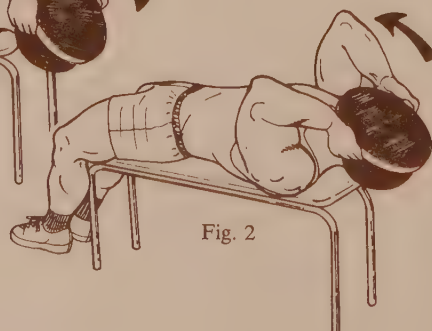


Fig. 2



▲ Lying Supine Barbell Plate Neck Resistance

Lie in a supine position on a flat bench with the top of your shoulders about even with the end of the bench. Place a flat barbell plate on your forehead and hold it in place with your hands. Lower your head backward and down to the lowest possible comfortable position. Inhale and raise your head up in a semicircular motion as high as you comfortably can. Continue raising and lowering your head until the prescribed number of repetitions are completed.

■ Wrestler's Bridge

Do this exercise on a mat or use a pad to rest your head on. Kneel down and place the top of your head on the mat. Cross your arms on your chest while you raise your body upward to a pyramid position with your legs as straight as possible and all of

the weight distributed between your feet and your head. Now commence to roll the top of your head frontward and backward causing the neck muscles to take the bulk of the work load. After doing the prescribed number of repetitions to the front and rear, change directions and do the same movement from side to side. You can then rotate your body around so your chest and mid-section is facing upward and perform the same movements to the front and back as well as side to side.

■ Standing Rubber Inner Tube Neck Resistance

Use a bicycle inner tube or a portion of an automobile inner tube for this exercise. Tie the inner tube around a post. Place the inner tube over your head and against your forehead. Step forward in order to apply tension on the inner tube. Draw your head back to the furthest comfortable position. Inhale and pull your head forward to the lowest comfortable position. Continue going forward and backward until the prescribed number of repetitions are completed. Now turn around and place the inner tube against the back of your head. Continue going forward and backward until the prescribed number of repetitions are completed. Then place the inner tube against the right side of your head just above your ear and go from side to side until the prescribed number of repetitions are completed. Next to the left side to finish the exercise.

■ Seated Rubber Inner Tube Neck Resistance

Front, side and rear neck muscles

Use a bicycle inner tube or a portion of an automobile inner tube for this exercise. Tie the inner tube around a post. Position a bench in front of the post, having the bench far enough from the post to allow you to perform the exercise properly. Place the inner tube over your head and against your forehead. Step forward in order to apply tension on the inner tube and sit on the bench. Grasp the end of the bench with both hands for support. Draw your head back to the furthest comfortable position. Inhale and pull your head forward to the lowest comfortable position. Continue going forward and backward until the prescribed number of repetitions are completed. Now turn around and place the inner tube against the back of your head. Continue going forward and backward until the prescribed number of repetitions are completed.

WRESTLER'S BRIDGE

Front, side and rear neck muscles



Fig. 1

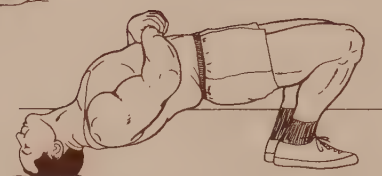


Fig. 2

STANDING RUBBER INNER TUBE NECK RESISTANCE

Front, side and rear neck muscles



Fig. 1

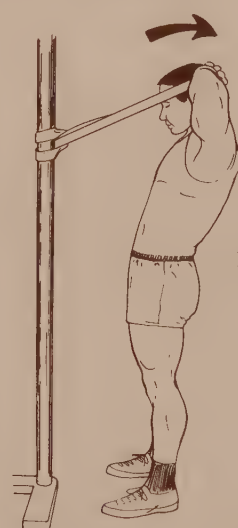


Fig. 2

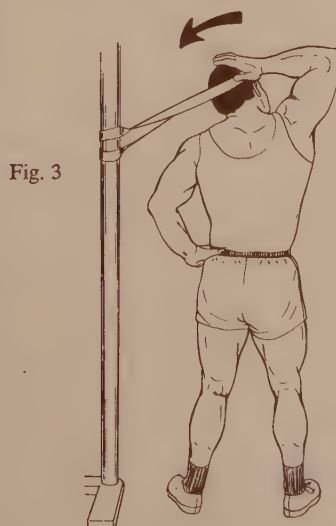


Fig. 3

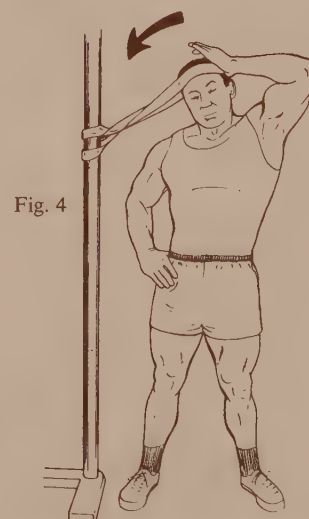
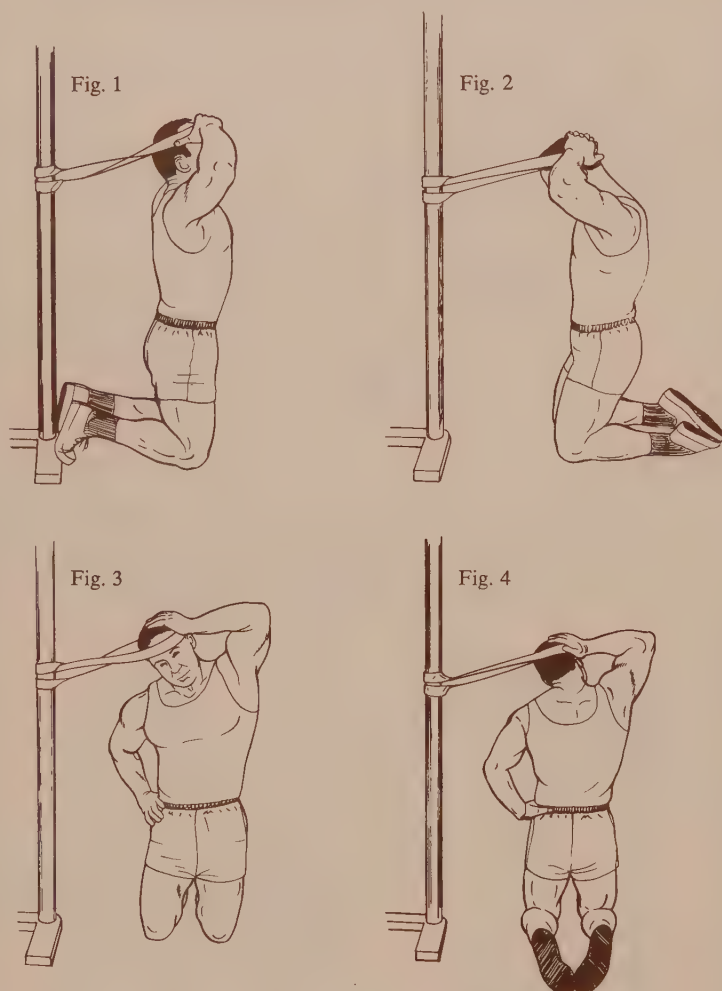


Fig. 4

KNEELING RUBBER INNER TUBE NECK RESISTANCE

Front, side and rear neck muscles



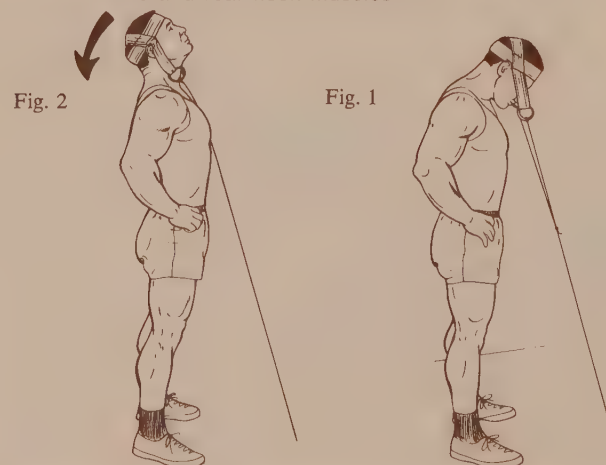
pleted. Now sit sideways on the bench with your left side towards the post and place the inner tube against the right side of your head just above your ear and go from side to side until the prescribed number of repetitions are completed. Next to the left side to finish the exercise.

■ **Kneeling Rubber Inner Tube Neck Resistance**

Use a bicycle inner tube or a portion of an automobile inner tube for this exercise. Tie the inner tube around a post. Place the inner tube over your head and against your forehead. Kneel down in a comfortable position. Keep your back straight and if necessary lower the inner tube on the post until it is even with the top of your head. Be sure you are far enough away from the post so tension is on the tube during the entire movement of the exercise. Draw your head back to the furthest comfortable position. Inhale and pull your head forward to the lowest comfortable position. Continue going forward and backward until the prescribed number of repetitions are completed. Now turn around and place the inner tube against the back of your head. Continue going forward and backward until the prescribed number of repetitions are completed. Now turn sideways and kneel with your left side towards the post and place the inner tube against the right side of your head just above your ear and go from side to side until the prescribed number of repetitions are completed. Next to the left side to finish the exercise.

STANDING HEAD HARNESS LOW PULLEY UNIVERSAL MACHINE NECK RESISTANCE

Side and rear neck muscles



▲ **Standing Head Harness Low Pulley Universal Machine Neck Resistance**

Attach the end of a head harness to the cable of a Universal machine station that is used for curls, upright rowings, etc. Select the desired weight and then place the head harness on your head. Stand erect but slightly forward to keep the cable from rubbing against your body. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Seated Back Supported Head Harness Low Pulley Universal Machine Neck Resistance

Position a chair in front of a Universal machine station that is used for curls, upright rowings, etc., with the front of the chair facing the machine. Have the chair far enough from the pulley to allow you to perform the exercise properly. Attach the end of a head harness to the cable. Select the desired weight and then place the head harness on your head. Step backward and sit on the chair with your back against the support. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

SEATED BACK SUPPORTED HEAD HARNESS LOW PULLEY UNIVERSAL MACHINE NECK RESISTANCE

Side and rear neck muscles

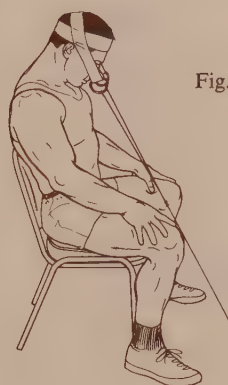


Fig. 1



Fig. 2

▲ Lying Head Harness Low Pulley Universal Machine Neck Resistance

Position a flat bench end ways in front of a Universal machine station that is used for curls, upright rowings, etc. Have the bench far enough away from the pulley to allow you to perform the exercise properly. Attach the end of a head harness to the cable. Select the desired weight and then place the head harness on your head. Lie face down on the flat bench so the top of your shoulders are about even with the end of the bench. The bench must be high enough so your neck is supporting the weight stack. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

LYING HEAD HARNESS LOW PULLEY UNIVERSAL MACHINE NECK RESISTANCE

Side and rear neck muscles

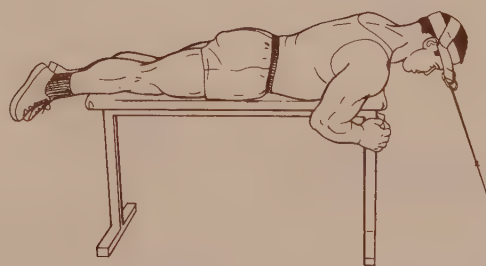


Fig. 1

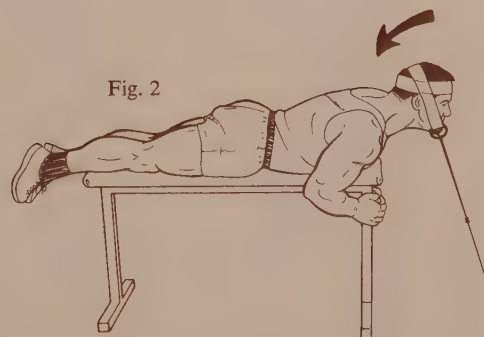


Fig. 2

▲ Kneeling Head Harness Low Pulley Universal Machine Neck Resistance

Attach the end of a head harness to the

KNEELING HEAD HARNESS LOW PULLEY UNIVERSAL MACHINE NECK RESISTANCE

Side and rear neck muscles



Fig. 2



Fig. 1

SEATED HEAD HARNESS LOW PULLEY UNIVERSAL MACHINE NECK RESISTANCE

Side and rear neck muscles



Fig. 2

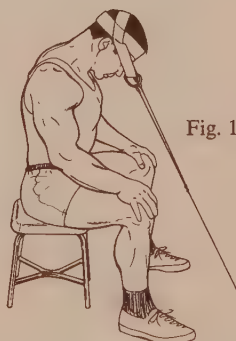


Fig. 1

STANDING HEAD HARNESS LOW PULLEY NECK RESISTANCE

Side and rear neck muscles



Fig. 2



Fig. 1

cable of a Universal machine station that is used for curls, upright rowings, etc. Select the desired weight and then place the head harness on your head. Kneel down in a comfortable position with your back straight but far enough from the machine to allow you to do the exercise properly. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Seated Head Harness Low Pulley Universal Machine Neck Resistance

Position a bench or chair in front of a Universal machine station that is used for curls, upright rowings, etc. Have the bench far enough away from the pulley to allow you to perform the exercise properly. Attach the end of a head harness to the cable. Select the desired weight and then place the harness on your head. Sit on the bench and lean slightly forward. Either place your hands on your thighs or grasp the bench. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Standing Head Harness Low Pulley Neck Resistance

Stand, facing a wall pulley. Bend forward and attach the lower cable of the pulley to the end of the rope, or chain, of a head harness. Select the desired weight and then place the head harness on your head. Stand erect but slightly forward to keep the cable from rubbing against your body. Lower your head forward to the lowest possible comfortable position. Inhale and raise

your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Kneeling Head Harness Low Pulley Neck Resistance

Stand facing a wall pulley. Bend forward and attach the lower cable of the pulley to the end of the rope, or chain, of a head harness. Select the desired weight and then place the head harness on your head. Kneel down in a comfortable position with your back straight but far enough from the machine to allow you to do the exercise properly. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Seated Back Supported Head Harness Low Pulley Neck Resistance

Position a chair in front of a wall pulley with the front of the chair facing the machine. Have the chair far enough from the pulley to allow you to perform the exercise properly. Attach the end of the head harness to the lower cable. Select the desired weight and then place the head harness on your head. Step backward and sit on the chair with your back against the support. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

KNEELING HEAD HARNESS LOW PULLEY NECK RESISTANCE

Side and rear neck muscles

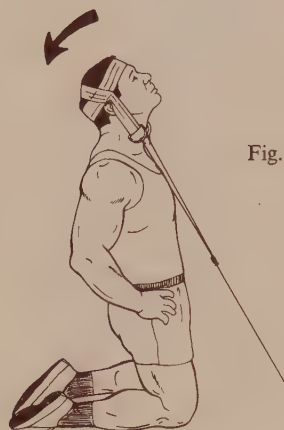


Fig. 2



Fig. 1

SEATED BACK SUPPORTED HEAD HARNESS LOW PULLEY NECK RESISTANCE

Side and rear neck muscles

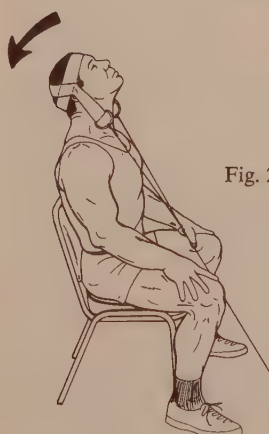


Fig. 2

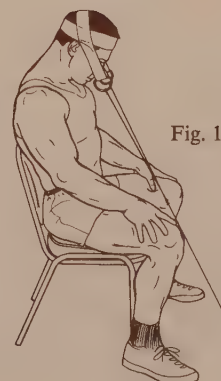


Fig. 1

SEATED HEAD HARNESS LOW PULLEY NECK RESISTANCE

Side and rear neck muscles

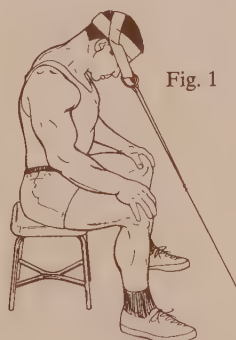


Fig. 1

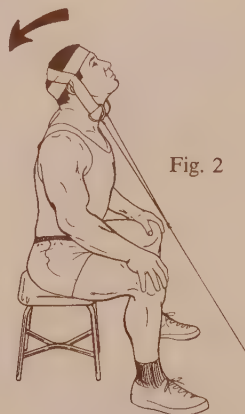


Fig. 2

LYING HEAD HARNESS LOW PULLEY NECK RESISTANCE

Side and rear neck muscles

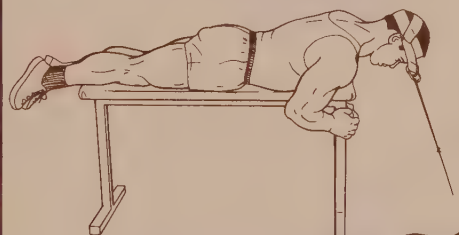


Fig. 1

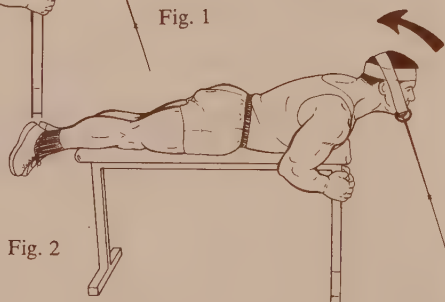


Fig. 2

SEATED BACK SUPPORTED HEAD HARNESS HIGH PULLEY NECK RESISTANCE

Front and rear neck muscles

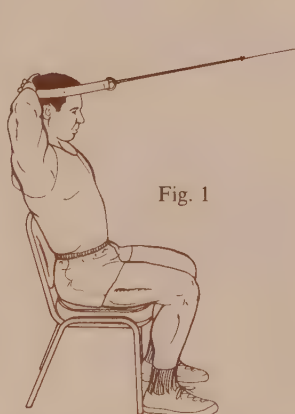


Fig. 1

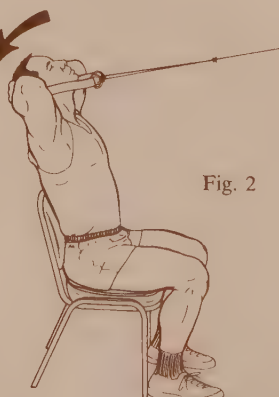


Fig. 2

▲ Seated Head Harness Low Pulley Neck Resistance

Position a bench or chair in front of a wall pulley. Have the bench far enough away from the pulley to allow you to perform the exercise properly. Stand facing the pulley and bend forward and attach the lower cable of the pulley to the end of the rope, or chain, of a head harness. Select the desired weight and then place the head harness on your head. Sit on the bench and lean slightly forward. Either place your hands on your thighs or grasp the bench for support your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Lying Head Harness Low Pulley Neck Resistance

Position a flat bench end ways in front of a wall pulley. Have the bench far enough away from the pulley to allow you to perform the exercise properly. Stand facing the pulley and bend forward and attach the lower cable of the pulley to the end of the rope, or chain, of a head harness. Select the desired weight and then place the head harness on your head. Lie face down on the flat bench so the top of your shoulders are about even with the end of the bench. The bench must be high enough so the weight of the pulley is not resting on the stack. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and over in a semicircular motion as far to the left as you comfortably can. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Seated Back Supported Head Harness High Pulley Neck Resistance

Position a chair in front of a wall pulley with

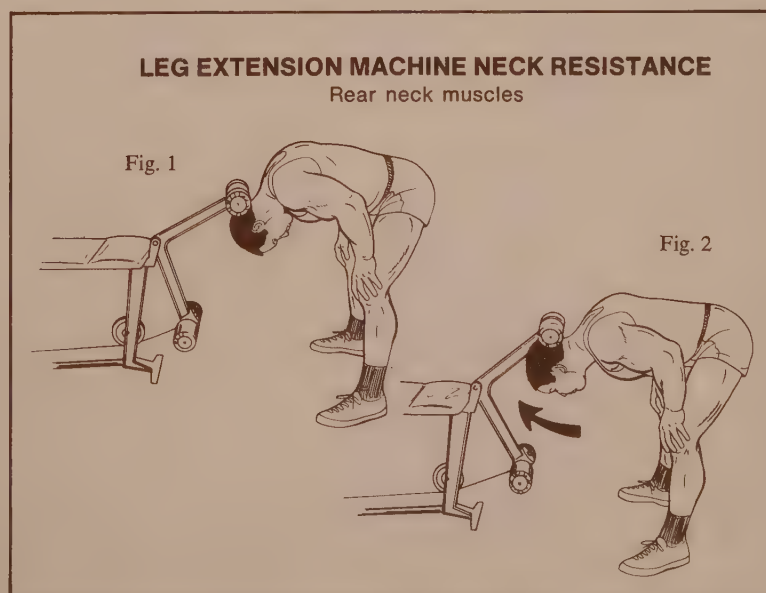
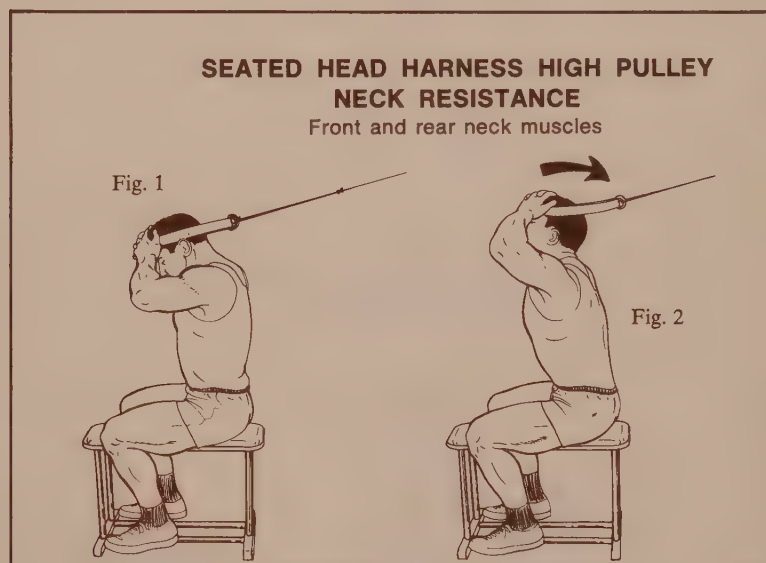
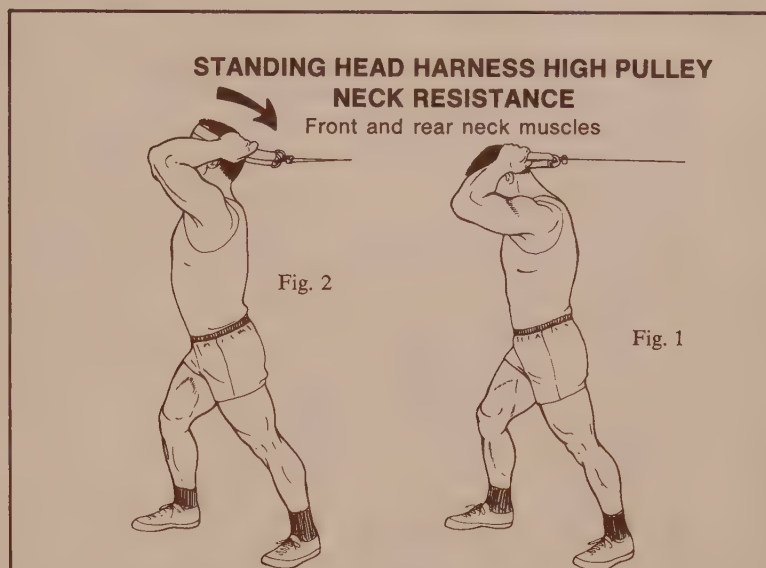
the front of the chair facing the machine. Have the chair far enough from the pulley to allow you to perform the exercise properly. Attach the end of the head harness to the upper cable. Select the desired weight and then place the head harness on your head. Step backward and sit on the chair with your back against the support. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed.

▲ Standing Head Harness High Pulley Neck Resistance

Stand back to a wall pulley. Attach the upper cable of the pulley to the end of the rope, or chain, of a head harness. Select the desired weight and place the head harness on your head. Stand erect with your back straight and far enough away from the pulley to perform the exercise. Lower your head forward to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now draw your head over to the right side. Inhale and raise your head up and back in a semicircular motion to the left. Continue going from right to left until the prescribed number of repetitions are completed.

▲ Seated Head Harness High Pulley Neck Resistance

Position a bench long ways in front of a wall pulley. Have the bench far enough away from the pulley to allow you to perform the exercise properly. Attach the end of the head harness to the upper cable. Select the desired weight and then place the head harness on your head. Sit on the bench back to the pulley. With your back straight and your hands on your forehead to help secure the head strap, lower your head forward to the lowest possible position. Inhale and raise your head up and back in a semicircular motion as far back as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed.



STANDING HEAD HARNESS NECK RESISTANCE ON UNIVERSAL LEG EXTENSION MACHINE

Rear neck muscles

Fig. 1

Fig. 2

Fig. 3

SEATED NECK RESISTANCE ON PARAMOUNT NECK MACHINE

Front, side and rear neck muscles

Fig. 1

Fig. 2

Fig. 3

▲ Leg Extension Machine Neck Resistance

Bend forward at the waist and bend your legs so you are able to place the back of your head against one of the pads on a leg extension machine that is used for leg bicep curls. Place your hands on your upper thighs to help support your upper body. Lower your head to the lowest possible comfortable position. Inhale and raise your head up and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Illustration on page (547)

▲ Standing Head Harness Neck Resistance on Universal Leg Extension Machine

Position the leather head strap of the neck resistance unit of a Universal leg extension machine against your forehead. Step forward putting tension on the spring. Draw your head back to the furthest comfortable position. Inhale and pull your head forward and down to the lowest comfortable position. Once in the lowest position, bring your head upward and back in a semicircular motion as far as you comfortably can. Continue going forward and backward until the prescribed number of repetitions are completed. Now turn around and place the head strap on the back of your head and repeat the forward and backward movement. Next to the right side and finally to the left side, completing the exercise.

▲ Seated Neck Resistance on Paramount Neck Machine

Select the desired weight to be used for the exercise and then sit on the seat of the Paramount neck machine, with your back against the back rest. Position the leather head strap against your forehead. It may seem more comfortable to keep your hands on the strap during the exercise to help hold it in position. Draw your head back to the furthest comfortable position. Inhale and pull your head forward and down to the lowest comfortable position. Once in the lowest position, push your head upward and back in a semicircular motion as far as you comfortably can. Do the prescribed number of repetitions and then turn to the back and place the leather strap against the back of your head and repeat the forward and backward movement. Next to the right side and finally to the left side, completing the exercise.

Introduction to Forearm Section

The forearm is the area between the elbow and wrist made up of two long bones, the ulna and radius. The muscles which cause flexion are the brachioradialis, brachialis and biceps. Weakness of these muscles allows for an outward rotation of the forearm, interfering with daily activities such as turning doorknobs, cutting with a knife or turning the hand downward as if to pick up an object. This movement is used extensively in dribbling a basketball, handling balls, some gymnastic movements, wrestling and fencing.

Supination of the forearm is the combined action of the supinator and the biceps brachii. This movement is noted in underhand pitching, tennis backhand, drive and throwing a curve ball. Weakness of these muscles interferes with function of basic movements such as eating with a spoon.

Extension of the forearm is produced by the force of gravity and is effected by the triceps and anconeus.

Injury to the forearm usually is the result of a fall or blow on an outstretched hand causing sprain, strain, contusions, and, in severe cases, fracture. Injury to this area is usually associated with de-

creased function of the hand and wrist. Tendonitis can result from a blow, hyperflexion, or hyperextension of the wrist.

Wrist flexion and wrist extension is used in nearly all sports activities. However, wrist activities found in such sports as tennis, racquetball, badminton, squash, golf, and baseball could not take place with any accuracy if the extensor muscles did not contract to stabilize the wrist. Even though the extensor muscles are weaker than the flexors, they must be strong enough to equalize the contraction of the flexor muscle groups.

The most common injury to the wrist is the sprain, usually the result of an abnormal, forced movement of the wrist. Falling on an extended wrist may cause fracture, but more often than not a sprain will be evident. The injury normally occurs as a result of a fall on an outstretched hand forcing the radius upward and backward.

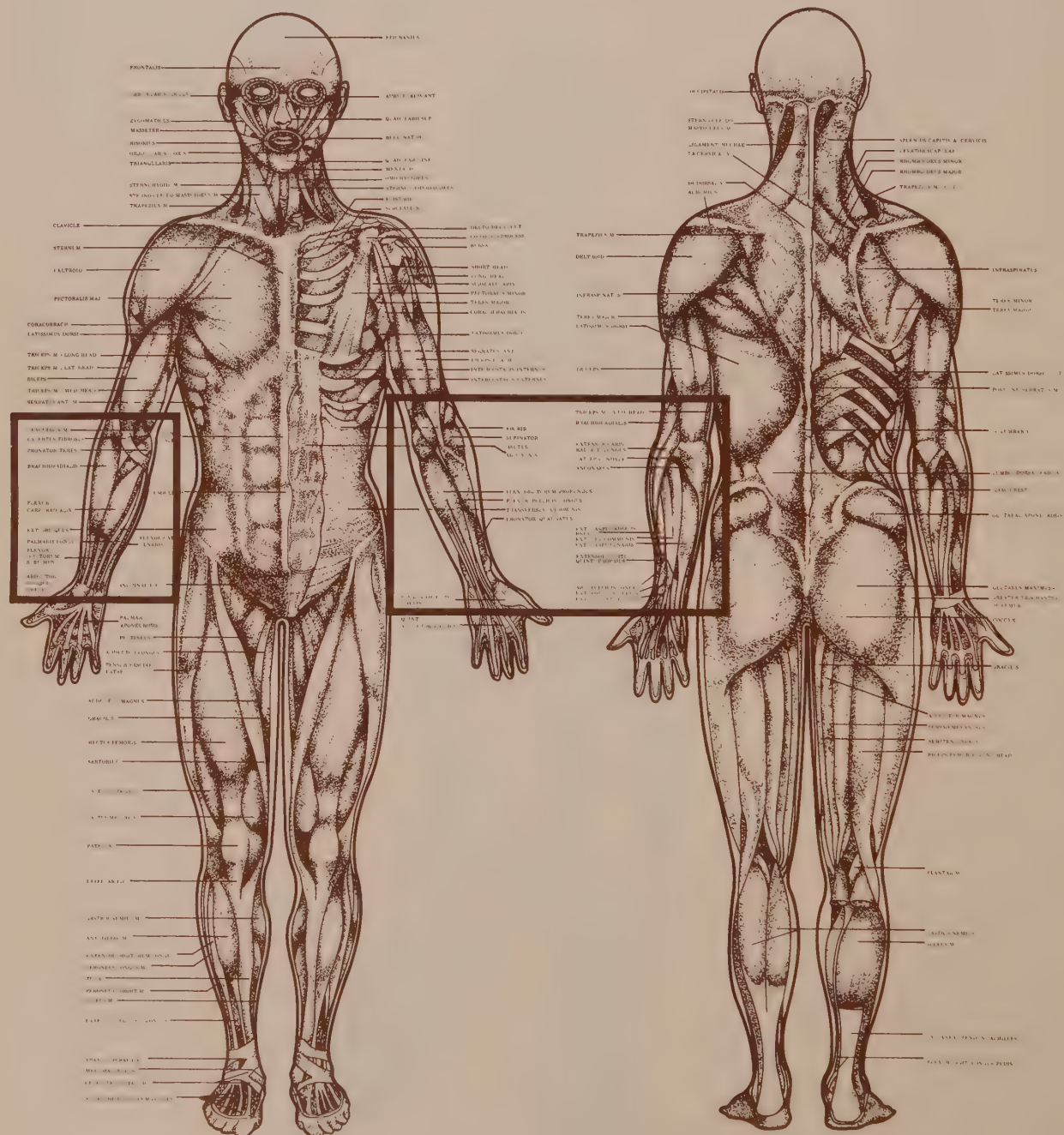
It should be quite obvious forearms and wrists which are strong and in condition for particular activities can improve an athlete's performance. Weight resistance exercises are considered one of the best means known to accomplish this.

Forearm section



Bill's forearm strength was tremendous. Wrist curls with over 200 pounds were done on a regular daily basis.

Muscle Anatomy



Anterior View

Posterior View

If a person is interested in weight training for more than basic conditioning, it is imperative that he study each illustration and description before attempting a new exercise. Progress definitely can be deterred if an exercise is done incorrectly.

Many exercises can be accomplished with the exact same motion but will affect different areas of a muscle by the angle at which the exercise is performed. For example: an exercise done on a flat bench, or an incline bench, will put different emphasis on the same muscle even though the same motion, weight and equipment are used.

It is therefore necessary to perform exercises from as many different angles that are reasonable and to use as many variations that are reasonable to develop a fully matured muscular physique.

On the following pages, highly accurate drawings appear that will enable you to see the pieces of equipment used to perform each exercise and the style used for each movement. Beside each visual illustration appears a written description of how the exercise should be done. Each succeeding

paragraph lists the proper name and describes the different variations that can be done with the same equipment, only varying the angle or adding a movement. If an exercise is done exactly the same as the written description, but the angle or a different bench has to be used, the written description below the visual illustration will still hold true for all the exercises listed below the description. Only the proper name, "degree of difficulty" symbol, and the area most affected by the movement will be listed. This system has been inaugurated to avoid repetition in describing the same basic movements over and over again.

The "degree of difficulty" symbol appearing at the beginning of each heading will give you at a glance what exercise may be suited for your present physical condition.

NOTE: It is not necessarily true that an exercise marked ● (easy) may not be just as effective as one marked ★ (hard). Any exercise can be made more or less difficult, depending on the weight used or the effort put forth.

Key To "Degree Of Difficulty" Symbols

● Easy ▲ Intermediate ■ Difficult ★ Hard

EQUIPMENT NEEDED FOR FOREARM SECTION



Wrist Roller



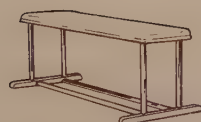
Olympic Plate



Hand Gripper



Tennis Ball



Flat Bench



Barbell



Newspaper

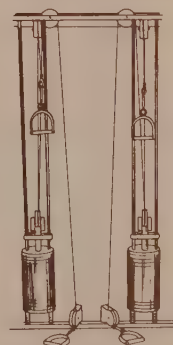


Dumbbells



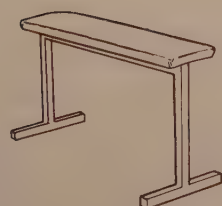
Short Pulley Bar

High Wall Pulley

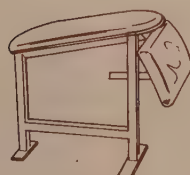


Pulley Handles

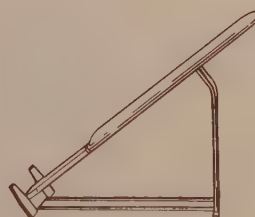
Low Wall Pulley



High Flat Bench



Low Preacher Bench



Incline Bench

STANDING ARMS EXTENDED WRIST ROLLER WRIST CURL

Outside forearms

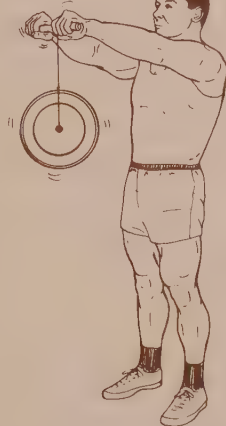


Fig. 1

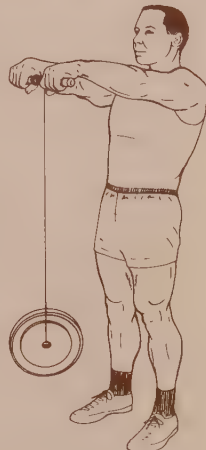


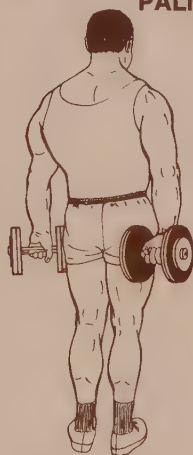
Fig. 2

▲ Standing Arms Extended Wrist Roller Wrist Curl

Place a fairly light weight on the end of the rope of a wrist roller. Stand erect, holding the wrist roller with both hands, using a palms down grip. Extend your arms straight out in front of you, keeping them parallel with the floor. Commence to roll the weight up to the bar by curling your right hand over and down as far as you can and then curling your left hand over and down as far as you can. Continue going back and forth from your right hand to left hand until the weight touches the bar. Lower the weight back to starting position by reversing the movement of your hands.

STANDING BEHIND BACK ALTERNATED DUMBBELL PALMS UP WRIST CURL

Inside forearms



right



left

▲ Standing Behind Back Alternated Dumbbell Palms Up Wrist Curl

Grasp a dumbbell in each hand and place them behind your back where your buttocks and upper thighs meet. Keep your back and arms straight with your elbows locked, using a palms away grip on the weights. Inhale and curl your right hand upward as high as you possibly can. Lower the dumbbell to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Standing Behind Back Two Dumbbell Palms Up Wrist Curl

Inside forearms

Grasp a dumbbell in each hand and place them behind your back where your buttocks and upper thighs meet. Keep your back and arms straight with your elbows locked, using a palms away grip on the weights. Inhale and curl your hands upward as high as you possibly can. Lower the dumbbells to starting position and exhale.

STANDING BEHIND BACK BARBELL PALMS UP WRIST CURL

Inside forearms

Fig. 1

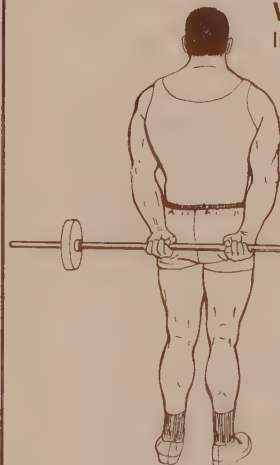
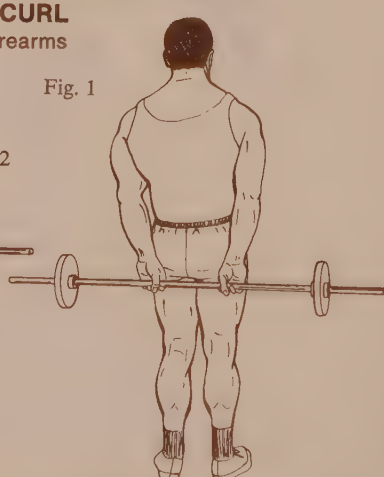


Fig. 2



▲ Standing Behind Back Barbell Palms Up Wrist Curl

Place a barbell on the floor. Step over the bar and squat down and pick the bar up, using a palms away grip about twenty inches wide as you stand erect and place the bar where your buttocks and upper thighs meet. Keep your back and arms straight with your elbows locked. Inhale and curl your hands upward as high as you possibly can. Lower the bar to starting position and exhale.

■ Olympic Plate Seated Hand Squeeze

Inside forearms

Grasp a forty-five pound Olympic plate by the ridge in each hand. Sit at the end of a flat bench with your feet planted firmly on the floor and your back straight. With the plates at arm's length at your sides with your palms facing in, lower the plates until your fingers are nearly extended but still capable of holding the weights. Inhale and close your hands, raising the plates a few inches. Continue doing this until your grip commences to give out. You can do this exercise with both hands at the same time. You can alternate from one hand to the other or do the exercise one hand at a time.

■ Olympic Plate Standing Hand Squeeze

Grasp a forty-five pound Olympic plate by the ridge in each hand. Stand erect with the plates hanging at arm's length at your sides with your palms facing in. Lower the plates until your fingers are nearly extended but still capable of holding the weights. Inhale and close your hands, raising the plates a few inches. Continue doing this until your grip commences to give out. You can do this exercise with both hands at the same time. You can alternate from one hand to the other or do the exercise one hand at a time.

▲ Incline Bench One Arm Dumbbell Palm Up Wrist Curl

Grasp a dumbbell with your right hand and step to the rear of an incline bench. Place your entire arm on the incline pad, letting the dumbbell rest on the pad with your arm straight out, using a palms up grip. Inhale and curl your right hand upward as high as possible. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Seated Two Dumbbell Palms Up Wrist Curl

Grasp a dumbbell in each hand. Sit at the end of a flat bench and plant your feet on the floor about twelve inches apart. Lean forward and place your forearms on your upper thighs keeping your palms facing up. Have your hands over your knees just at

OLYMPIC PLATE STANDING HAND SQUEEZE

Inside forearms



Fig. 1



Fig. 2

INCLINE BENCH ONE ARM DUMBBELL PALM UP WRIST CURL

Inside forearms



Fig. 1



Fig. 2

SEATED TWO DUMBBELLS PALMS UP WRIST CURL

Inside forearms



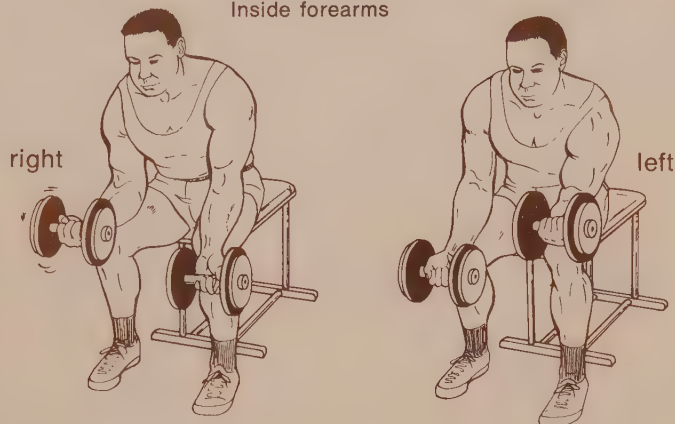
Fig. 1



Fig. 2

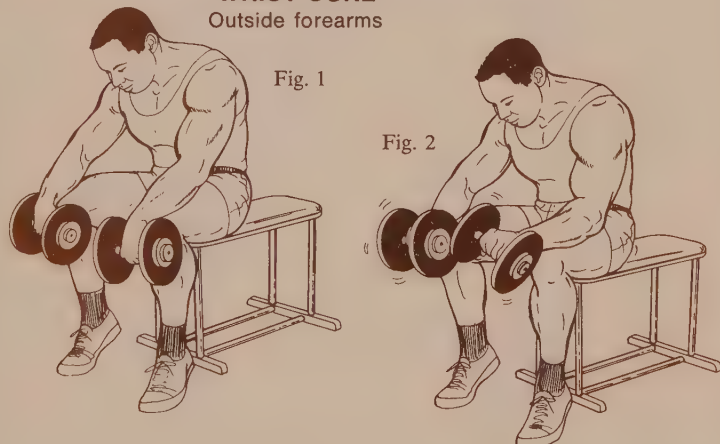
SEATED ALTERNATED DUMBBELL PALMS UP WRIST CURL

Inside forearms



SEATED TWO DUMBBELL PALMS DOWN WRIST CURL

Outside forearms



SEATED ALTERNATED DUMBBELL PALMS DOWN WRIST CURL

Outside forearms



your wrists. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the dumbbells throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from your upper thighs. Lower the weights to starting position and exhale.

▲ Seated Alternated Dumbbell Palms Up Wrist Curl

Grasp a dumbbell in each hand. Sit at the end of a flat bench and plant your feet on the floor about twelve inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Have your hands over your knees just at your wrists. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the dumbbells throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Now curl your left hand upward as high as you possibly can. Lower the weight to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Seated Two Dumbbell Palms Down Wrist Curl

Grasp a dumbbell in each hand. Sit at the end of a flat bench and plant your feet on the floor about twelve inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the dumbbells throughout the exercise. Inhale and curl your hands upward as high as possible. Do not let your forearms raise up from your upper thighs. Lower the weights to starting position and exhale.

▲ Seated Alternated Dumbbell Palms Down Wrist Curl

Grasp a dumbbell in each hand. Sit at the end of a flat bench and plant your feet on the floor about twelve inches apart. Lean

forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower the dumbbells to the lowest possible comfortable position by bending your wrist downward, but keep a tight grip on the dumbbells throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Now curl your left hand upward as high as you possibly can. Lower the weight to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Seated One Arm Dumbbell Palm Down Wrist Curl

Grasp a dumbbell in your right hand. Sit at the end of a flat bench and plant your feet on the floor about twelve inches apart. Lean forward and place your right forearm on your upper right thigh, keeping your palm facing down. Place your left hand on your left thigh just above your knee to help support your upper body. Have your right hand over your knee just at your wrist. Lower the dumbbell to the lowest possible comfortable position by bending your wrist downward but keep a tight grip on the dumbbell throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Seated One Arm Dumbbell Palm Up Wrist Curl

Grasp a dumbbell in your right hand. Sit at the end of a flat bench and plant your feet on the floor about twelve inches apart. Lean forward and place your right forearm on your upper right thigh, keeping your palm facing up. Place your left hand on your left thigh just above your knee to help support your upper body. Have your right hand over your knee just at your wrist. Lower the dumbbell to the lowest possible comfortable position by bending your wrist downward but keep a tight grip on the dumbbell throughout the exercise. Inhale and curl

SEATED ONE ARM DUMBBELL PALM UP WRIST CURL

Inside forearms



Fig. 1



Fig. 2

SEATED ONE ARM DUMBBELL PALM DOWN WRIST CURL

Outside forearms



Fig. 1



Fig. 2

SEATED SIDE DUMBBELL ONE ARM PALM IN WRIST CURL

Inside forearms

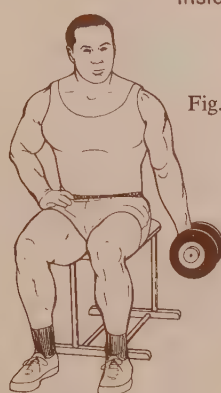


Fig. 1



Fig. 2

your right hand upward as high as you possibly can. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Seated Side Dumbbell One Arm Palm In Wrist Curl

Grasp a dumbbell in your right hand and sit at the end of a flat bench with your feet planted firmly on the floor and your back straight. With your right arm hanging straight down to your side while holding the dumbbell with your palm facing in, inhale and curl your hand inward and up as high as you comfortably can. Hold the top position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand repeating the same number of repetitions. This exercise can be done exactly the same way if you stand, sit on an incline bench, or kneel on the floor.

SEATED SIDE DUMBBELL TWO ARM PALMS IN WRIST CURL

Inside forearms

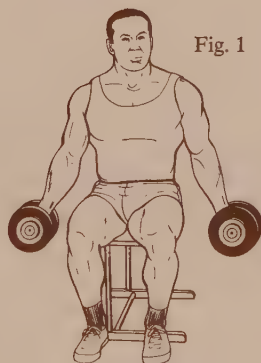


Fig. 1

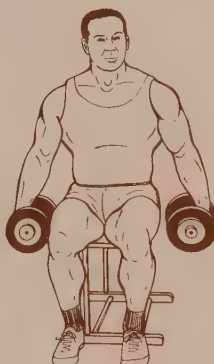


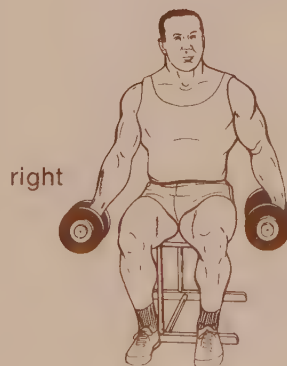
Fig. 2

▲ Seated Side Dumbbell Two Arm Palms In Wrist Curl

Grasp a dumbbell in each hand and sit at the end of a flat bench with your feet planted firmly on the floor and your back straight. With your arms hanging straight down to your sides while holding a dumbbell in each hand with your palms facing in, inhale and curl your hands inward and up as high as you comfortably can. Hold the top position for a short period of time and return to starting position and exhale. This exercise can be done exactly the same way if you stand, sit on an incline bench, or kneel on the floor.

SEATED SIDE DUMBBELL ALTERNATED PALMS IN WRIST CURL

Inside forearms



▲ Seated Side Dumbbell Alternated Palms In Wrist Curl

Grasp a dumbbell in each hand and sit at the end of a flat bench with your feet planted firmly on the floor and your back straight. With your arms hanging straight down to your sides while holding a dumbbell in each hand with your palms facing in, inhale and curl your right hand inward and up as high as you comfortably can. Hold the top position for a short period and return to starting position and exhale. Now curl your left hand inward and up as high

as you comfortably can. Hold the top position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed. This exercise can be done exactly the same way if you stand, sit on an incline bench, or kneel on the floor.

▲ Seated Barbell Palms Up Wrist Curl

Grasp a barbell with both hands using a palms up grip about sixteen inches wide. Sit at the end of a bench and plant your feet on the floor about twelve inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Have your hands over your knees just at your wrists. Lower the bar to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from your upper thighs. Lower the weight to starting position and exhale.

▲ Seated Barbell Palms Down Wrist Curl

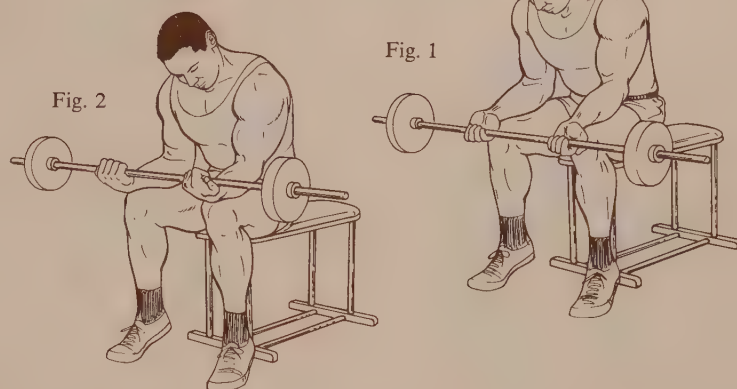
Grasp a barbell with both hands using a palms down grip about ten inches wide. Sit at the end of a bench and plant your feet on the floor about twelve inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower the bar to the lowest possible comfortable position by bending your wrists downward but keeping a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from your upper thighs. Lower the weight to starting position and exhale.

▲ Squatting Two Dumbbell Palms Up Wrist Curl

Grasp a dumbbell in each hand. Squat down until your upper thighs are parallel with the floor. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Have your hands over your knees just at your wrists. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the dumbbells throughout the exercise. Inhale and curl your hands upward as high as you pos-

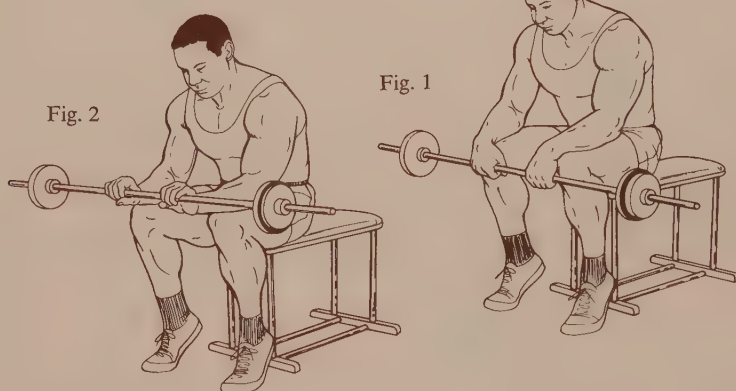
SEATED BARBELL PALMS UP WRIST CURL

Inside forearms



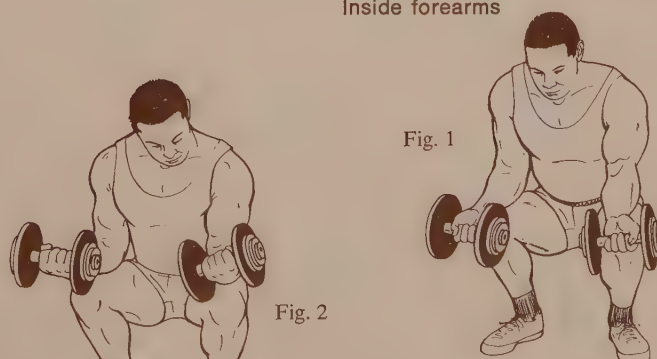
SEATED BARBELL PALMS DOWN WRIST CURL

Outside forearms



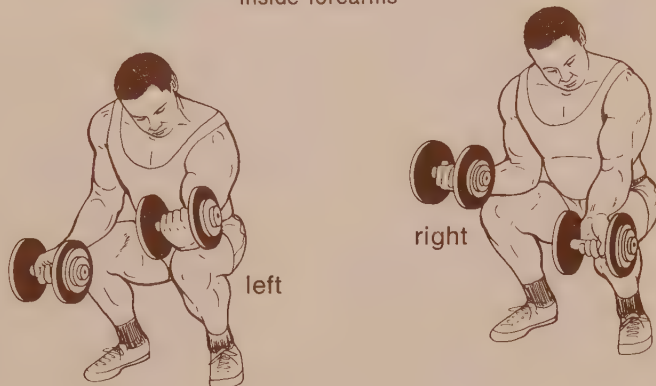
SQUATTING TWO DUMBBELL PALMS UP WRIST CURL

Inside forearms

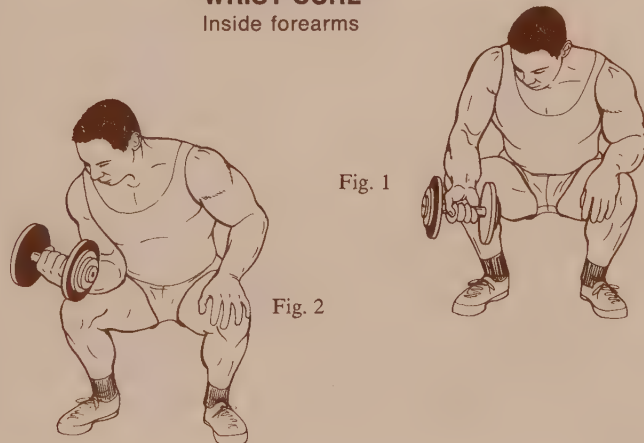


SQUATTING ALTERNATED DUMBBELL PALMS UP**WRIST CURL**

Inside forearms

**SQUATTING ONE ARM DUMBBELL PALM UP****WRIST CURL**

Inside forearms

**SQUATTING ALTERNATED DUMBBELL PALMS DOWN WRIST CURL**

Outside forearms



sibly can. Do not let your forearms raise up from your upper thighs. Lower the weights to starting position and exhale.

▲ SQUATTING TWO DUMBBELL PALMS DOWN WRIST CURL

Outside forearms

▲ Squatting Alternated Dumbbell Palms Up Wrist Curl

Grasp a dumbbell in each hand. Squat down until your upper thighs are parallel with the floor. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Have your hands over your knees just at your wrists. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the dumbbells throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Now curl your left hand upward as high as you possibly can. Lower the weight to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Squatting One Arm Dumbbell Palm Up Wrist Curl

Grasp a dumbbell in your right hand. Squat down until your upper thighs are parallel with the floor. Lean forward and place your right forearm on your upper right thigh, keeping your palm facing up. Place your left hand on your left thigh just above your knee to help support your upper body. Have your right hand over your knee just at your wrist. Lower the dumbbell to the lowest possible comfortable position by bending your wrist downward, but keep a tight grip on the dumbbell throughout the exercise. Inhale and curl your right hand upward as high as possible. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Squatting Alternated Dumbbell Palms Down Wrist Curl

Grasp a dumbbell in each hand. Squat down until your upper thighs are parallel

with the floor. Lean forward and place your forearms on your upper thighs, keeping your palms down. Have your hands over your knees just at your wrists. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the dumbbells throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Now curl your left hand upward as high as you possibly can. Lower the weight to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Squatting One Arm Dumbbell Palm Down Wrist Curl

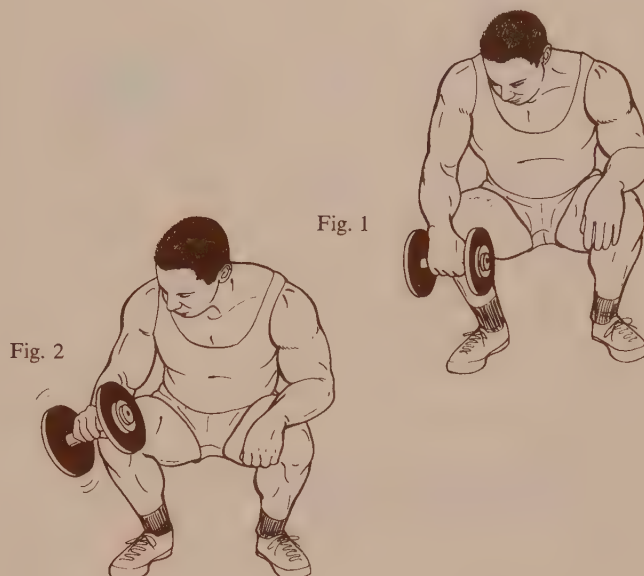
Grasp a dumbbell in your right hand. Squat down until your upper thighs are parallel with the floor. Lean forward and place your right forearm on your upper right thigh, keeping your palm facing down. Place your left hand on your left thigh just above your knee to help support your upper body. Have your right hand over your knees just at your wrist. Lower the dumbbell to the lowest possible comfortable position by bending your wrist downward, but keep a tight grip on the dumbbell throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearm raise up from your upper thigh. Lower the weight to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Squatting Barbell Palms Down Wrist Curl

Grasp a barbell with both hands, using a palms down grip about ten inches wide. Squat down until your upper thighs are parallel with the floor. Lean forward and place your forearms on your upper thighs keeping your palms facing down. Have your hands over your knees at your wrists. Lower the bar to the lowest possible comfortable position by bending your wrists downward but keeping a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from your upper thighs. Lower the weight to starting position and exhale.

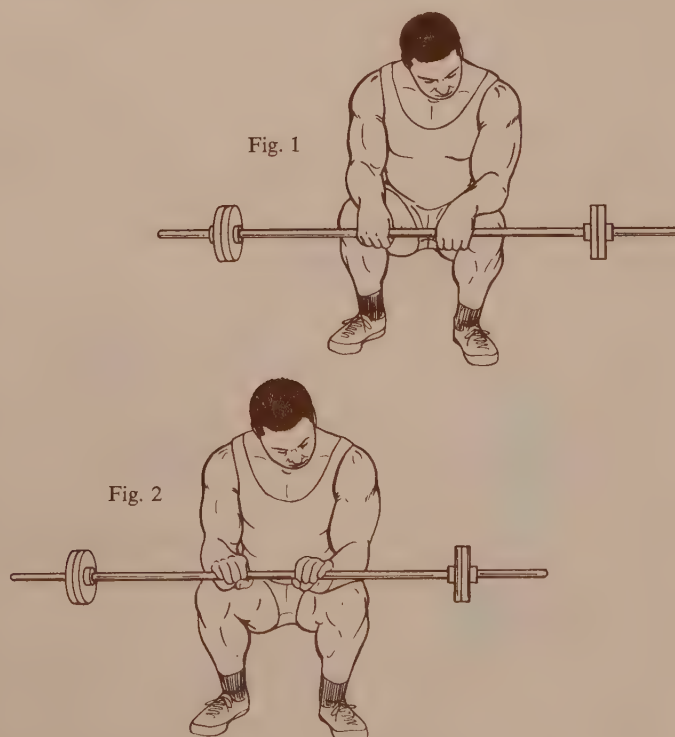
SQUATTING ONE ARM DUMBBELL PALM DOWN WRIST CURL

Outside forearms



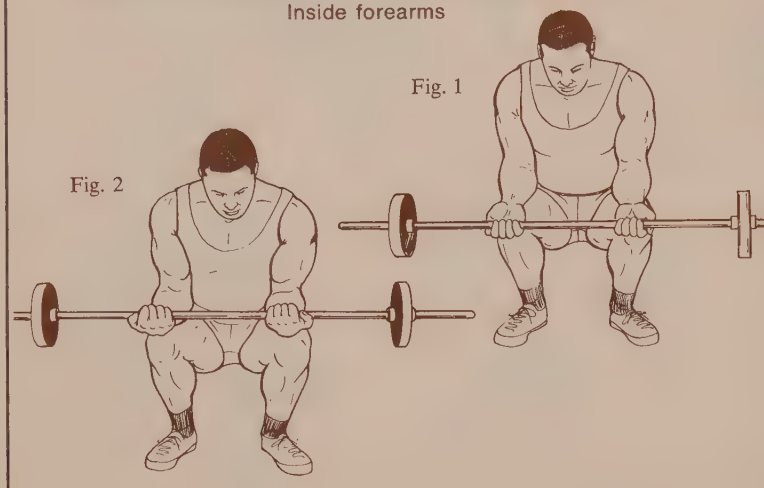
SQUATTING BARBELL PALMS DOWN WRIST CURL

Outside forearms



SQUATTING BARBELL PALMS UP WRIST CURL

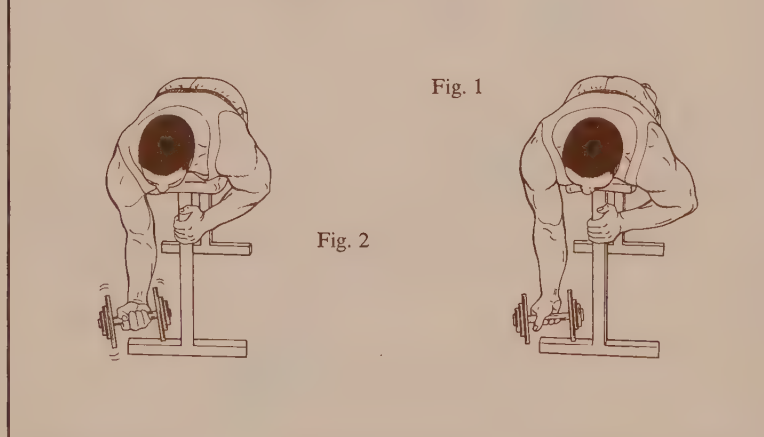
Inside forearms

**▲ Squatting Barbell Palms Up Wrist Curl**

Grasp a barbell with both hands using a palms up grip about sixteen inches wide. Squat down until your upper thighs are parallel with the floor. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees at your wrists. Lower the bar to the lowest possible comfortable position by bending your wrists downward but keeping a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from your upper thighs. Lower the weight to starting position and exhale.

FLAT BENCH ONE ARM DUMBBELL PALM UP WRIST CURL

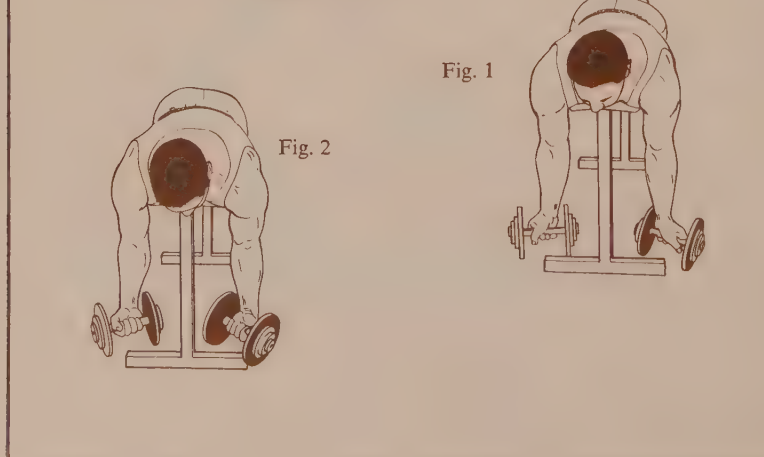
Inside forearms

**▲ Flat Bench One Arm Dumbbell Palm Up Wrist Curl**

Place a dumbbell on the floor at the end of a fairly tall flat bench. Lie face forward on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the dumbbell with your right hand. Pick the weight up, keeping your right arm straight and using a palms up grip on the dumbbell. With the dumbbell off the floor, inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

FLAT BENCH TWO DUMBBELL PALMS UP WRIST CURL

Inside forearms

**▲ Flat Bench Two Dumbbell Palms Up Wrist Curl**

Place two dumbbells on the floor at the end of a fairly tall flat bench. Lie face forward on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the dumbbells. Pick the weights up, keeping your arms straight and using a palms up grip on the dumbbells. With the dumbbells off the floor, inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale.

▲ Flat Bench Alternated Dumbbell Palms Up Wrist Curl

Place two dumbbells on the floor at the end of a fairly tall flat bench. Lie face forward

on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the dumbbells. Pick the weights up, keeping your arms straight and using a palms up grip on the dumbbells. With the dumbbells off the floor, inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Flat Bench Alternated Dumbbell Palms Down Wrist Curl

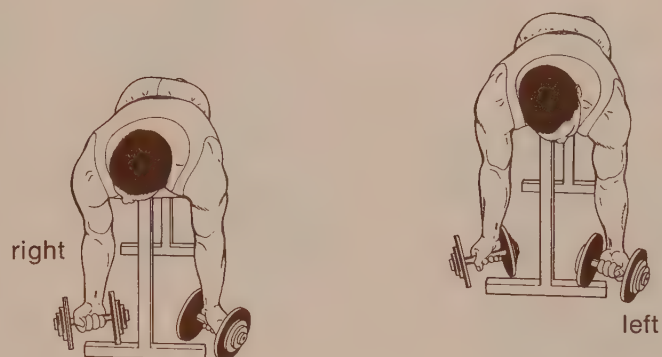
Place two dumbbells on the floor at the end of a fairly tall flat bench. Lie face forward on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the dumbbells. Pick the weights up, keeping your arms straight and using a palms down grip on the dumbbells. With the dumbbells off the floor, inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Flat Bench One Arm Dumbbell Palm Down Wrist Curl

Place a dumbbell on the floor at the end of a fairly tall flat bench. Lie face forward on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the dumbbell with your right hand. Pick the weight up, keeping your right arm straight and using a palm down grip on the dumbbell. With the dumbbell off the floor, inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

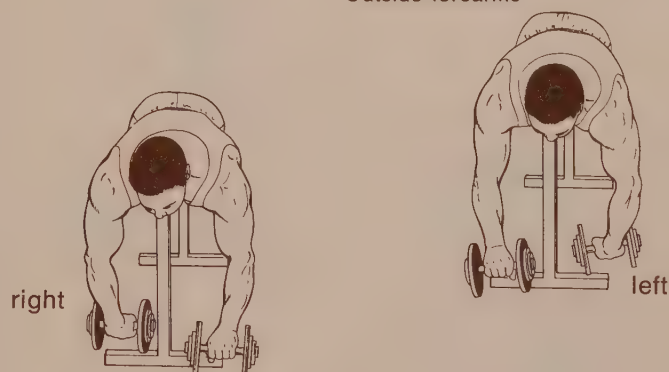
FLAT BENCH ALTERNATED DUMBBELL PALMS UP WRIST CURL

Inside forearms



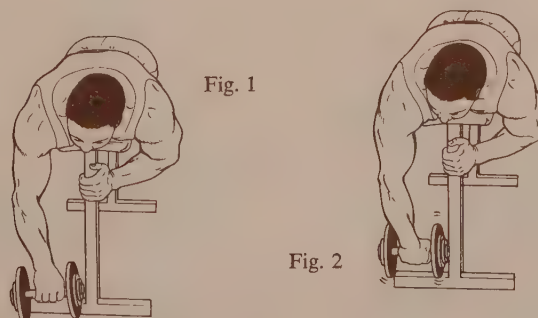
FLAT BENCH ALTERNATED DUMBBELL PALMS DOWN WRIST CURL

Outside forearms



FLAT BENCH ONE ARM DUMBBELL PALM DOWN WRIST CURL

Outside forearms



FLAT BENCH TWO DUMBBELL PALMS DOWN WRIST CURL

Outside forearms



Fig. 1

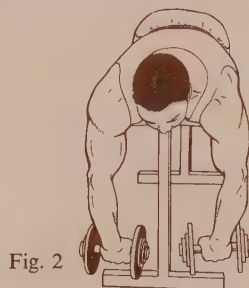


Fig. 2

▲ Flat Bench Two Dumbbell Palms Down Wrist Curl

Place two dumbbells on the floor at the end of a fairly tall flat bench. Lie face forward on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the dumbbells. Pick the weights up, keeping your arms straight and using a palms down grip on the dumbbells. With the dumbbells off the floor, inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale.

▲ Flat Bench Barbell Palms Up Wrist Curl

Place a barbell on the floor at the end of a fairly tall flat bench. Lie face forward on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the barbell with a palms up grip about sixteen inches wide. Pick the bar up, keeping your arms straight with the weight off the floor. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale.

FLAT BENCH BARBELL PALMS UP WRIST CURL

Inside forearms



Fig. 1

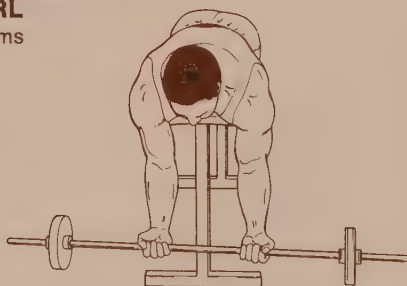


Fig. 2

▲ Flat Bench Barbell Palms Down Wrist Curl

Place a barbell on the floor at the end of a fairly tall flat bench. Lie face forward on the bench with your head and upper body about down to your upper pectorals over the end of the bench. Reach down and grasp the barbell with a palms down grip about twelve inches wide. Pick the bar up, keeping your arms straight with the weight off the floor. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale.

FLAT BENCH BARBELL PALMS DOWN WRIST CURL

Outside forearms

Fig. 1

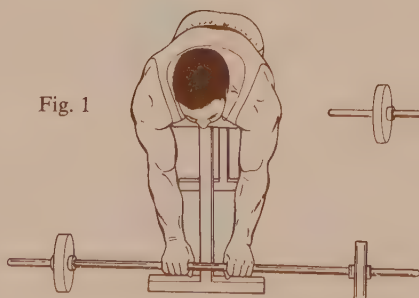


Fig. 2

▲ Two Dumbbell Over a Bench Palms Up Wrist Curl

Place two dumbbells beside a flat bench that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the dumbbells with both hands. Pick the dumbbells up and place your forearms flat on the bench. Have your hands over the side of the bench just at your wrist with your palms up and about sixteen inches apart. Lower

the dumbbells to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the weights throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from the bench. Lower the weights to starting position and exhale.

▲ Two Dumbbell Over a Bench Palms Down Wrist Curl

Place two dumbbells beside a flat bench that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the dumbbells with both hands. Pick the dumbbells up and place your forearms flat on the bench. Have your hands over the side of the bench just at your wrists with your palms down and about twelve inches apart. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the weights throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from the bench. Lower the weights to starting position and exhale.

▲ Alternated Dumbbell Over a Bench Palms Up Wrist Curl

Place two dumbbells beside a flat bench that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the dumbbells with both hands. Pick the dumbbells up and place your forearms flat on the bench. Have your hands over the side of the bench just at your wrists with your palms up. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the weights throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearms raise up from the bench. Lower the weight to starting position and exhale. Now curl your left hand upward as high as you possibly can. Lower the weight to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Alternated Dumbbell Over a Bench Palms Down Wrist Curl

Place two dumbbells beside a flat bench

TWO DUMBBELL OVER A BENCH PALMS UP WRIST CURL Inside forearms



Fig. 1

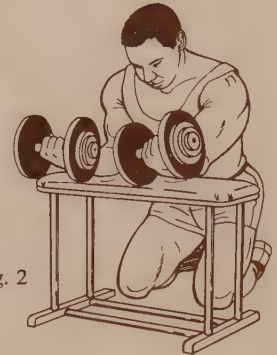


Fig. 2

TWO DUMBBELL OVER A BENCH PALMS DOWN WRIST CURL Outside forearms



Fig. 1

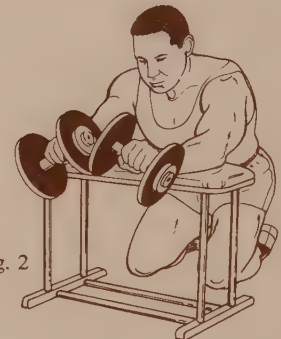
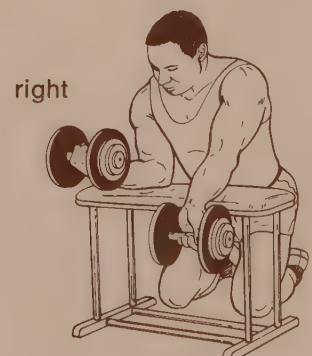


Fig. 2

ALTERNATED DUMBBELL OVER A BENCH PALMS UP WRIST CURL Inside forearms



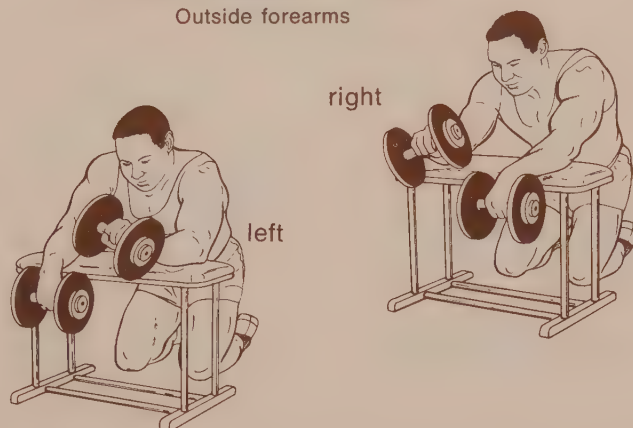
left



right

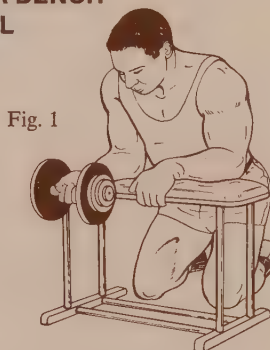
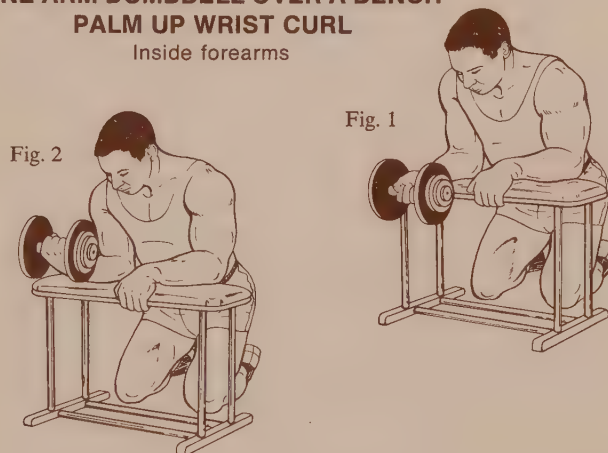
ALTERNATED DUMBBELL OVER A BENCH PALMS DOWN WRIST CURL

Outside forearms



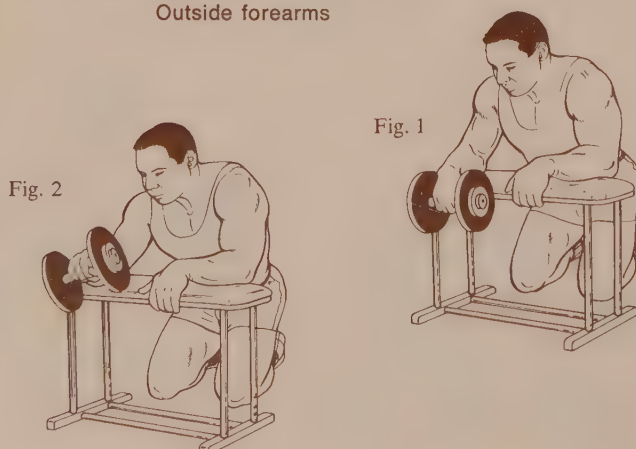
ONE ARM DUMBBELL OVER A BENCH PALM UP WRIST CURL

Inside forearms



ONE ARM DUMBBELL OVER A BENCH PALM DOWN WRIST CURL

Outside forearms



that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the dumbbells with both hands. Pick the dumbbells up and place your forearms flat on the bench. Have your hands over the side of the bench just at your wrists with your palms down and about twelve inches apart. Lower the dumbbells to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the weights throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Do not let your forearm raise up from the bench. Lower the weight to starting position and exhale. Now curl your left hand as high as you possibly can. Lower the weight to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ One Arm Dumbbell Over a Bench Palm Up Wrist Curl

Place a dumbbell beside a flat bench that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the dumbbell with your right hand. Pick the dumbbell up and place your right forearm flat on the bench. Have your hand over the side of the bench just at your wrist with your palm up. Lower the dumbbell to the lowest possible comfortable position by bending your wrist downward, but keep a tight grip on the dumbbell throughout the exercise. Inhale and curl your right hand upward as high as possible. Do not let your forearm raise up from the bench. Lower the weight to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ One Arm Dumbbell Over a Bench Palm Down Wrist Curl

Place a dumbbell beside a flat bench that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the dumbbell with your right hand. Pick the dumbbell up and place your right forearm flat on the bench. Have your hand over the side of the bench just at your wrist with your palm down. Lower the dumbbell to the lowest possible comfortable position by bending your wrist downward but keep a tight grip

on the dumbbell throughout the exercise. Inhale and curl your right hand upward as high as possible. Do not let your forearm raise up from the bench. Lower the weight to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Barbell Over a Bench Palms Up Wrist Curl

Place a barbell beside a flat bench that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the barbell with both hands, using a palms up grip about sixteen inches wide. Pick the bar up and place your forearms flat on the bench. Have your hands over the side of the bench just at your wrists. Lower the barbell to the lowest possible comfortable position by bending your wrist downward, but keep a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from the bench. Lower the weight to starting position and exhale.

▲ Barbell Over a Bench Palms Down Wrist Curl

Place a barbell beside a flat bench that is about sixteen inches high. Kneel down on your knees on the opposite side of the bench. Reach over and grasp the barbell with both hands, using a palms down grip about twelve inches wide. Pick the bar up and place your forearms flat on the bench. Have your hands over the side of the bench just at your wrists. Lower the barbell to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Do not let your forearms raise up from the bench. Lower the weight to starting position and exhale.

▲ Over a Bench Wrist Roller Wrist Curl

Place a fairly light weight on the end of the rope of a wrist roller. Kneel down on your knees beside a flat bench and place your forearms flat on the bench. Have your hands over the side of the bench just at your wrists. Commence to roll the weight up to the bar by curling your right hand over and down as far as you can and then

BARBELL OVER A BENCH PALMS UP WRIST CURL

Inside forearms

Fig. 1

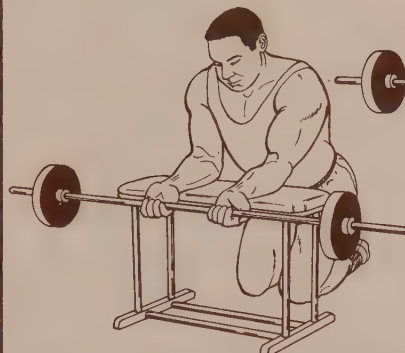


Fig. 2



BARBELL OVER A BENCH PALMS DOWN WRIST CURL

Outside forearms

Fig. 1

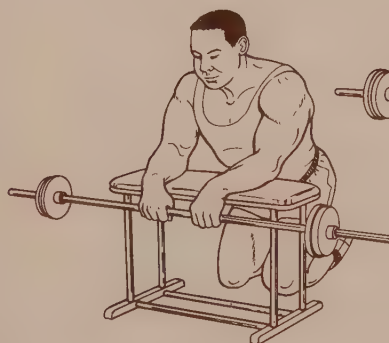
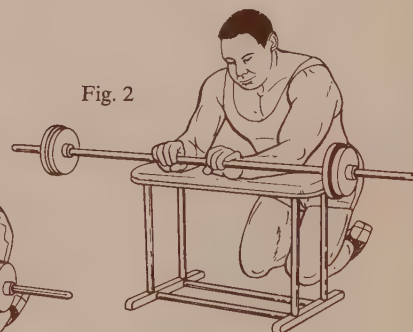


Fig. 2



OVER A BENCH WRIST ROLLER WRIST CURL

Outside forearms

Fig. 1



Fig. 2



SQUATTING WRIST ROLLER WRIST CURL

Outside forearms

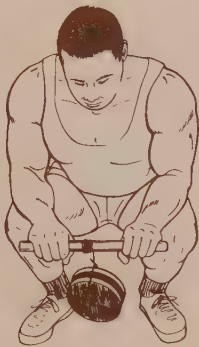
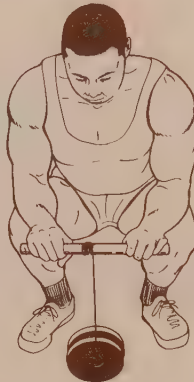


Fig. 2

Fig. 1



curling your left hand over and down as far as you can. Continue going back and forth from your right hand to your left hand until the weight touches the bar. Lower the weight back to starting position by reversing the movements of your hands.

▲ Squatting Wrist Roller Wrist Curl

Place a fairly light weight on the end of the rope of a wrist roller. Squat down until your upper thighs are parallel with the floor. Lean forward and place your forearms on your upper thighs using a palms down grip on the wrist roller. Have your hands over your knees just at your wrists. Commence to roll the weight up to the bar by curling your right hand over and down as far as you can. Continue going back and forth from your right hand to your left hand until the weight touches the bar. Lower the weight back to starting position by reversing the movements of your hands.

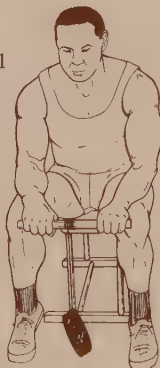
SEATED WRIST ROLLER WRIST CURL

Outside forearms



Fig. 2

Fig. 1

**▲ Seated Wrist Roller Wrist Curl**

Place a fairly light weight on the end of the rope of a wrist roller. Sit at the end of a flat bench and plant your feet on the floor about twelve inches apart. Lean forward and place your forearms on your upper thighs, using a palms down grip on the wrist roller. Have your hands over your knees just at your wrists. Commence to roll the weight up to the bar by curling your right hand over and down as far as you can and then curling your left hand over and down as far as you can. Continue going back and forth from your right hand to your left hand until the weight touches the bar. Lower the weight back to starting position by reversing the movements of your hands.

LOW PULLEY BAR STANDING FACE FORWARD PALMS UP WRIST CURL

Inside forearms



Fig. 2

Fig. 1

**▲ Low Pulley Bar Standing Face Forward Palms Up Wrist Curl**

Stand in front of a low wall pulley. Attach a short bar to the two lower pulley cables. Grasp the bar with both hands, using a palms up grip and stand back far enough from the machine so you can properly support the weight stacks throughout the exercise. With your hands about sixteen inches apart, stand erect with your back straight and arms hanging straight down in front of you with the back of your hands nearly touching your upper thighs. Inhale and curl your hands upward as high as you comfortably can. Hold this position for a short pe-

riod and return to starting position and exhale.

▲ Low Pulley Bar Standing Face Forward Palms Down Wrist Curl

Stand in front of a low wall pulley. Attach a short bar to the two lower pulley cables. Grasp the bar with both hands, using a palms down grip and stand back far enough from the machine so you can properly support the weight stacks throughout the exercise. With your hands about twelve inches apart, stand erect with your back straight and arms hanging straight down in front of you with the front of your hands nearly touching your upper thighs. Inhale and curl your hands upward as high as you comfortably can. Hold this position for a short period and return to starting position and exhale.

▲ Low Pulley Bar Standing Face Away Palms Up Wrist Curl

Attach a short bar to the two lower pulley cables of a low wall pulley. Face away from the machine and squat down and grasp the bar with both hands and stand erect with the bar behind your back about in line where your buttocks and upper thighs come together. With your hands about sixteen inches apart, stand erect with your back straight and arms hanging straight down in back of you. Inhale and curl your hands upward as high as you comfortably can. Hold this position for a short period and return to starting position and exhale.

▲ Low Pulley Incline One Arm Palm Down Wrist Curl

Position an incline bench in front of a low wall pulley. Place the incline far enough away from the machine so you can properly support the weight stack throughout the exercise. Grasp the handle of the low pulley cable with your right hand. Stand back behind the incline bench and place your entire arm over the bench, having it resting on the pad with your palm down. Inhale and curl your right hand upward as high as you comfortably can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

LOW PULLEY BAR STANDING FACE FORWARD PALMS DOWN WRIST CURL

Outside forearms



Fig. 2

Fig. 1



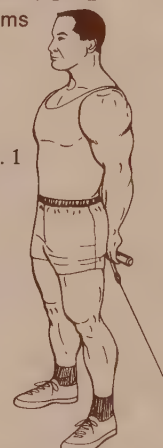
LOW PULLEY BAR STANDING FACE AWAY PALMS UP WRIST CURL

Inside forearms



Fig. 2

Fig. 1



LOW PULLEY INCLINE ONE ARM PALM DOWN WRIST CURL

Outside forearms

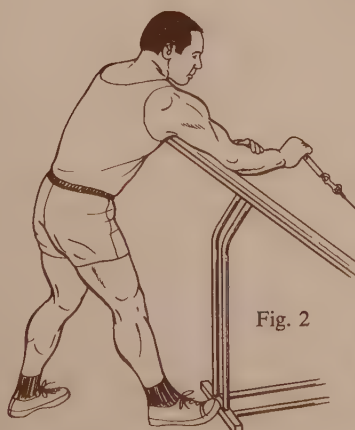


Fig. 2

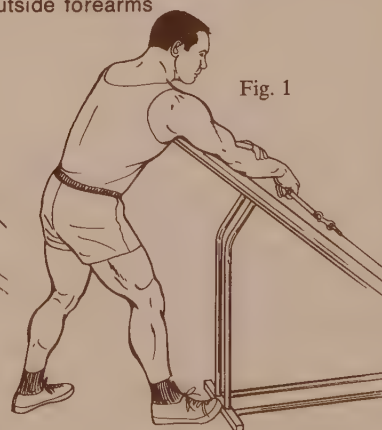
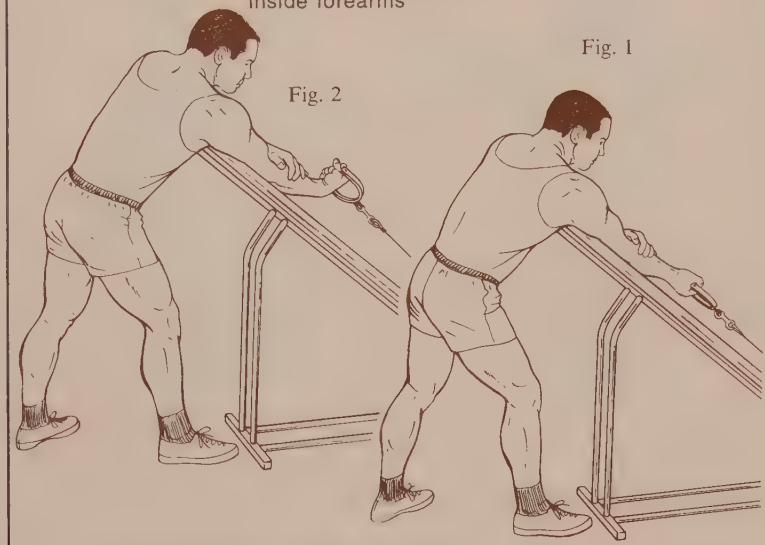


Fig. 1

LOW PULLEY INCLINE ONE ARM PALM UP WRIST CURL

Inside forearms

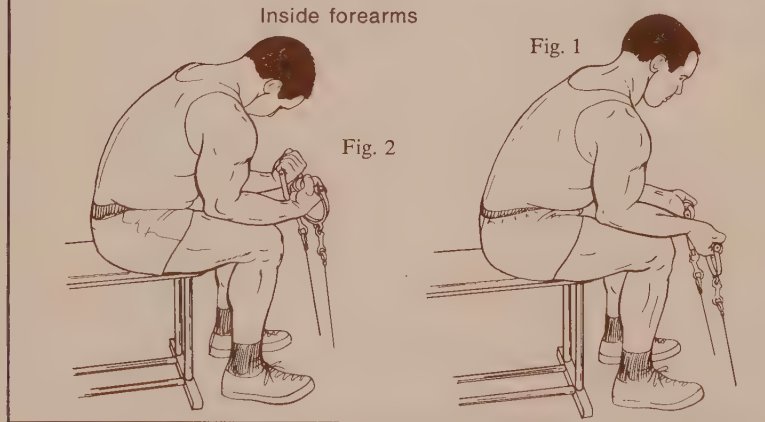


▲ Low Pulley Incline One Arm Palm Up Wrist Curl

Position an incline bench in front of a low wall pulley. Place the incline far enough away from the machine so you can properly support the weight stack throughout the exercise. Grasp the handle of the low pulley cable with your right hand. Stand back behind the incline bench and place your entire arm over the bench, having it resting on the pad with your palm up. Inhale and curl your right hand upward as high as you comfortably can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

LOW PULLEY SEATED TWO ARM PALMS UP WRIST CURL

Inside forearms



▲ Low Pulley Seated Two Arm Palms Up Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stacks throughout the exercise. Grasp the handles of the low pulley cables with both hands. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Have your hands over your knees just at your wrists. Lower your hands to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the handles throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do not let your forearms raise up from your upper thighs.

LOW PULLEY SEATED TWO ARM PALMS DOWN WRIST CURL

Outside forearms



▲ Low Pulley Seated Two Arm Palms Down Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stacks throughout the exercise. Grasp the handles of the low pulley cables with both hands. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower your hands to the lowest possible comfortable position by bending your wrists downward,

but keep a tight grip on the handles throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do not let your forearms raise up from your upper thighs.

▲ Low Pulley Seated Alternated Palms Down Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stacks throughout the exercise. Grasp the handles of the low pulley cables with both hands. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Low Pulley Seated Alternated Palms Up Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stacks throughout the exercise. Grasp the handles of the low pulley cables with both hands. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Have your hands over your knees just at your wrists. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand as high as you possibly can. Hold this position for a short period and return to starting position and

LOW PULLEY SEATED ALTERNATED PALMS DOWN WRIST CURL

Outside forearms



LOW PULLEY SEATED ALTERNATED PALMS UP WRIST CURL

Inside forearms



LOW PULLEY SEATED ONE ARM PALM UP WRIST CURL

Inside forearms



Fig. 1



Fig. 2

exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Low Pulley Seated One Arm Palm Up Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stack throughout the exercise. Grasp the handle of the low pulley cable with your right hand. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your right forearm on your upper thigh, keeping your palm facing up. Have your hand over your knee just at your wrist. Place your left hand on your lower left thigh to help support your upper body. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

LOW PULLEY SEATED ONE ARM PALM DOWN WRIST CURL

Outside forearms



Fig. 1



Fig. 2

▲ Low Pulley Seated One Arm Palm Down Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stack throughout the exercise. Grasp the handle of the low pulley cable with your right hand. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your right forearm on your upper thigh, keeping your palm facing down. Have your hand over your knees just at your wrist. Place your left hand on your lower left thigh to help support your upper body. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Low Pulley Squatting Two Arm Palms Down Wrist Curl

Stand in front of a wall pulley. Grasp the handles of the low pulley cable with both hands. Stand back far enough from the machine so you can properly support the weight stacks throughout the exercise. Squat down until your upper thighs are parallel with the floor with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower your hands to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the handles throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do not let your forearms raise up from your upper thighs.

▲ Low Pulley Squatting Two Arm Palms Up Wrist Curl

Stand in front of a low wall pulley. Grasp the handles of the low pulley cables with both hands. Stand back far enough from the machine so you can properly support the weight stacks throughout the exercise. Squat down until your upper thighs are parallel with the floor with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Have your hands over your knees just at your wrists. Lower your hands to the lowest possible comfortable position by bending your wrist downward, but keep a tight grip on the handles throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do not let your forearms raise up from your upper thighs.

▲ Low Pulley Squatting Alternated Palms Up Wrist Curl

Stand in front of a low wall pulley. Grasp the handles of the low pulley cables with both hands. Stand back far enough from the machine so you can properly support the weight stacks throughout the exercise. Squat down until your upper thighs are parallel with the floor with your feet about

LOW PULLEY SQUATTING TWO ARM PALMS DOWN WRIST CURL

Outside forearms



Fig. 1



Fig. 2

LOW PULLEY SQUATTING TWO ARM PALMS UP WRIST CURL

Inside forearms



Fig. 1



Fig. 2

LOW PULLEY SQUATTING ALTERNATED PALMS UP WRIST CURL

Inside forearms



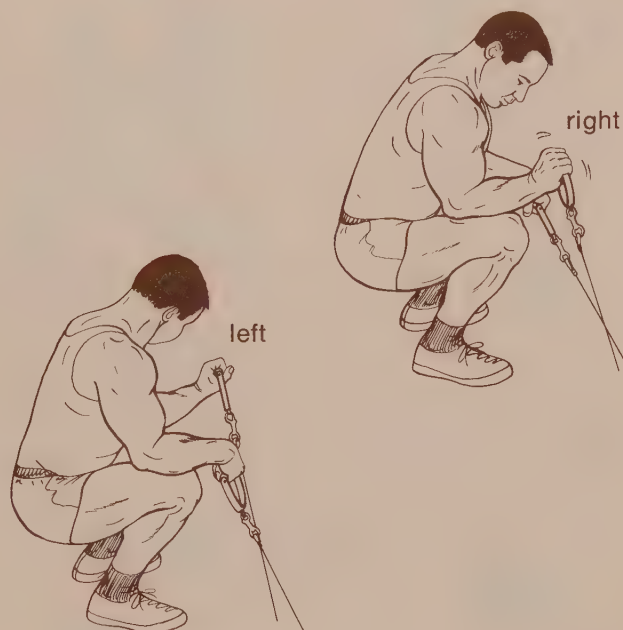
right



left

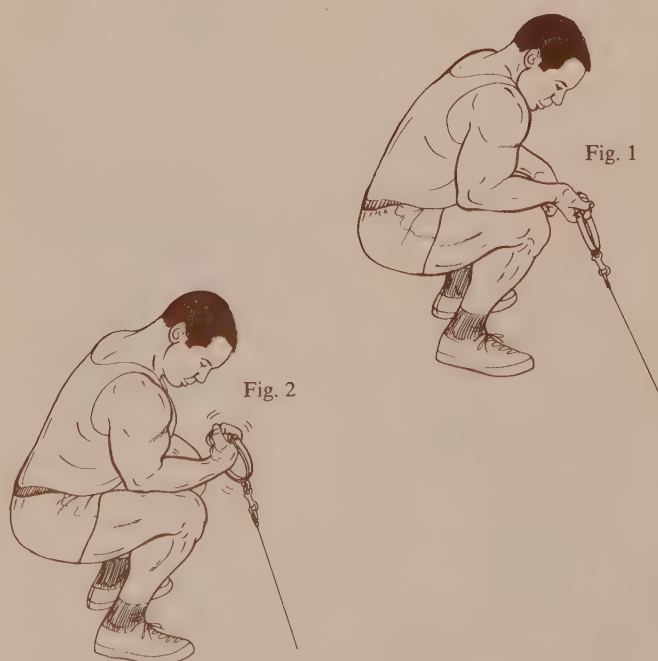
LOW PULLEY SQUATTING ALTERNATED PALMS DOWN WRIST CURL

Outside forearms



LOW PULLEY SQUATTING ONE ARM PALM UP WRIST CURL

Inside forearms



sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing up. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Low Pulley Squatting Alternated Palms Down Wrist Curl

Stand in front of a low wall pulley. Grasp the handles of the low pulley cables with both hands. Stand back far enough from the machine so you can properly support the weight stacks throughout the exercise. Squat down until your upper thighs are parallel with the floor with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Low Pulley Squatting One Arm Palm Up Wrist Curl

Stand in front of a low wall pulley. Grasp the handle of the low pulley cable with your right hand. Stand back far enough from the machine so you can properly support the weight stack throughout the exercise. Squat down until your upper thighs are parallel with the floor with your feet about sixteen inches apart. Lean forward and place your right forearm on your upper

thigh, keeping your palm facing up. Have your hand over your knee just at your wrist. Place your left hand on your lower left thigh to help support your upper body. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Low Pulley Squatting One Arm Palm Down Wrist Curl

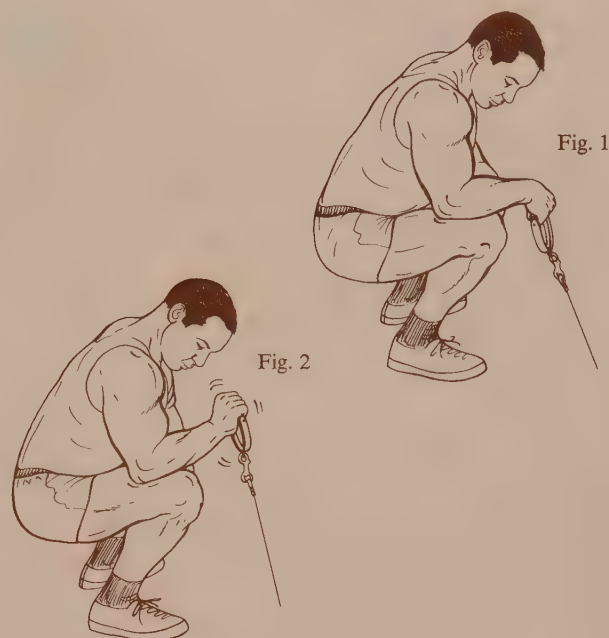
Stand in front of a low wall pulley. Grasp the handle of the low pulley cable with your right hand. Stand back far enough from the machine so you can properly support the weight stack throughout the exercise. Squat down until your upper thighs are parallel with the floor with your feet about sixteen inches apart. Lean forward and place your right forearm on your upper thigh, keeping your palm facing down. Have your hand over your knee just at your wrist. Place your left hand on your lower left thigh to help support your upper body. Lower your right hand to the lowest possible comfortable position by bending your right wrist downward, but keep a tight grip on the handle throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Low Pulley Seated Bar Palms Up Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stacks throughout the exercise. Attach a short bar to the two lower cables. Grasp the bar with both hands using a palms up grip. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your

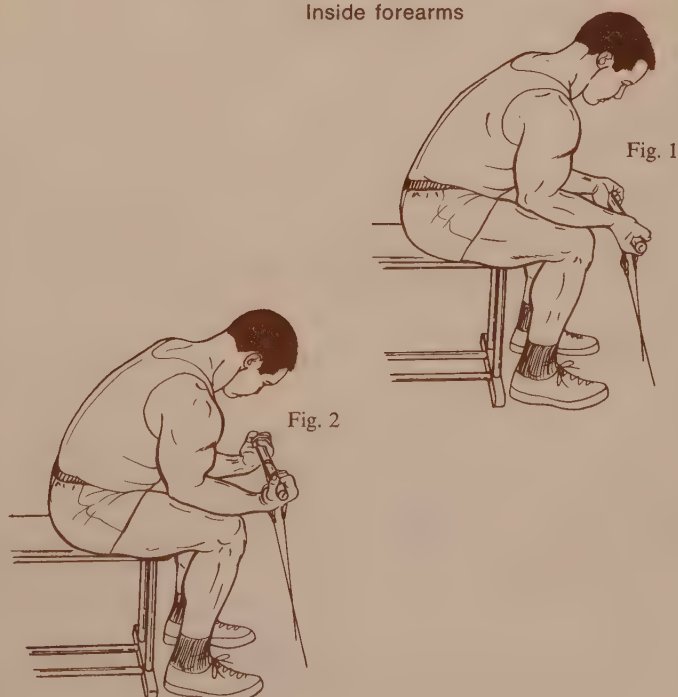
LOW PULLEY SQUATTING ONE ARM PALM DOWN WRIST CURL

Outside forearms



LOW PULLEY SEATED BAR PALMS UP WRIST CURL

Inside forearms



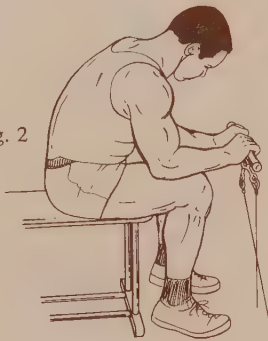
LOW PULLEY SEATED BAR PALMS DOWN WRIST CURL

Outside forearms

Fig. 1



Fig. 2



palms facing up. Have your hands over your knees just at your wrists. Lower the bar to the lowest possible comfortable position by bending your wrists downward but keep a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do not let your forearms raise up from your upper thighs.

▲ Low Pulley Seated Bar Palms Down Wrist Curl

Position a stool in front of a low wall pulley. Place the stool far enough away from the machine so you can properly support the weight stacks throughout the exercise. Attach a short bar to the two lower cables. Grasp the bar with both hands, using a palms down grip. Stand back and sit on the stool with your feet about sixteen inches apart. Lean forward and place your forearms on your upper thighs, keeping your palms facing down. Have your hands over your knees just at your wrists. Lower the bar to the lowest possible comfortable position by bending your wrists downward, but keep a tight grip on the bar throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do not let your forearms raise up from your upper thighs.

LOW PREACHER TWO DUMBBELL PALMS UP WRIST CURL

Inside forearms

Fig. 1

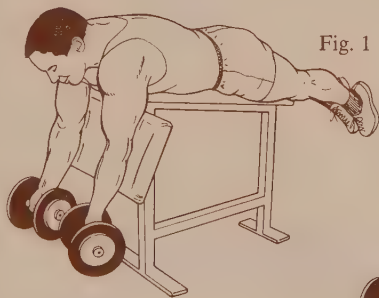
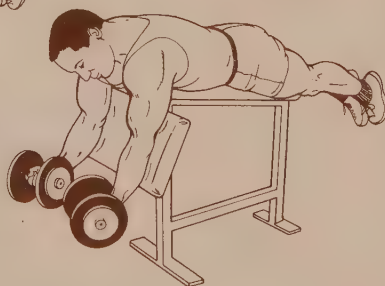


Fig. 2



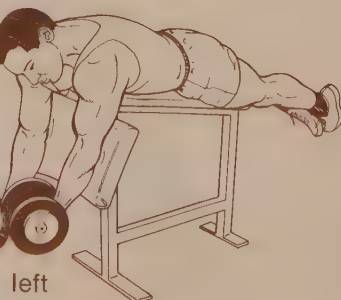
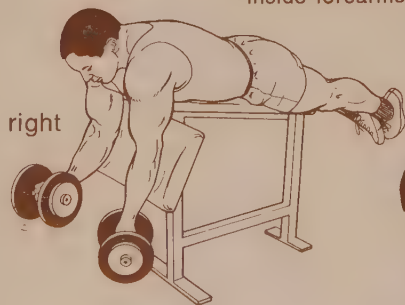
▲ Low Preacher Two Dumbbell Palms Up Wrist Curl

Place two dumbbells on the floor in front of a low preacher bench. Lie face down on the bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the dumbbells. Pick the weights up and place your upper arms against the support pad of the machine. Keep your arms straight and your palms facing up throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale.

LOW PREACHER ALTERNATED DUMBBELL PALMS UP WRIST CURL

Inside forearms

right



left

▲ Low Preacher Alternated Dumbbell Palms Up Wrist Curl

Place two dumbbells on the floor in front of a low preacher bench. Lie face down on the bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the dumbbells. Pick the weights up and place your upper arms against the sup-

port pad of the machine. Keep your arms straight and your palms facing up throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Low Preacher One Arm Dumbbell Palm Up Wrist Curl

Place a dumbbell on the floor in front of a low preacher bench. Lie face down on the bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the dumbbell with your right hand. Pick the weight up and place your upper arm against the support pad of the machine. Keep your arm straight and your palm facing up throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Low Preacher Alternated Dumbbell Palms Down Wrist Curl

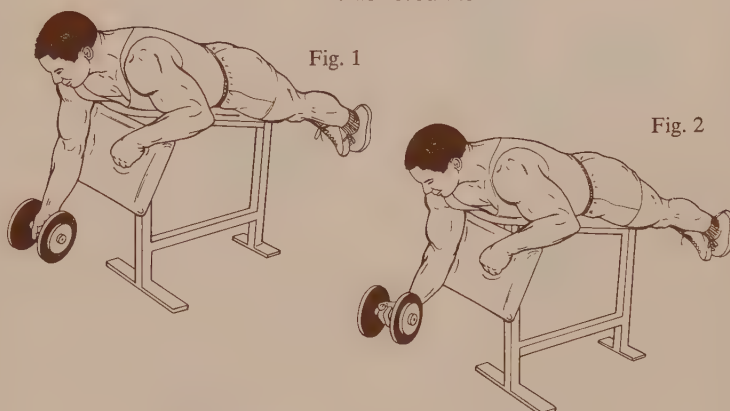
Place two dumbbells on the floor in front of a low preacher bench. Lie face down on the bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the dumbbells. Pick the weights up and place your upper arms against the support pad of the machine. Keep your arms straight and your palms down throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Now curl your left hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Continue going from right hand to left hand until the prescribed number of repetitions are completed.

▲ Low Preacher One Arm Dumbbell Palm Down Wrist Curl

Place a dumbbell on the floor in front of a low preacher bench. Lie face down on the

LOW PREACHER ONE ARM DUMBBELL PALM UP WRIST CURL

Inside forearms



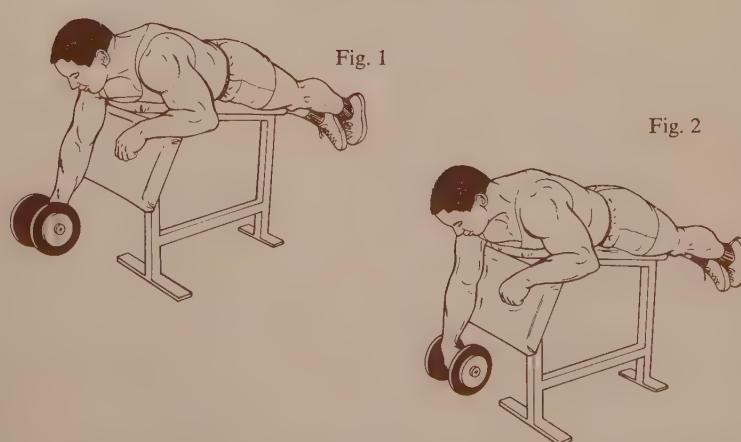
LOW PREACHER ALTERNATED DUMBBELL PALMS DOWN WRIST CURL

Outside forearms



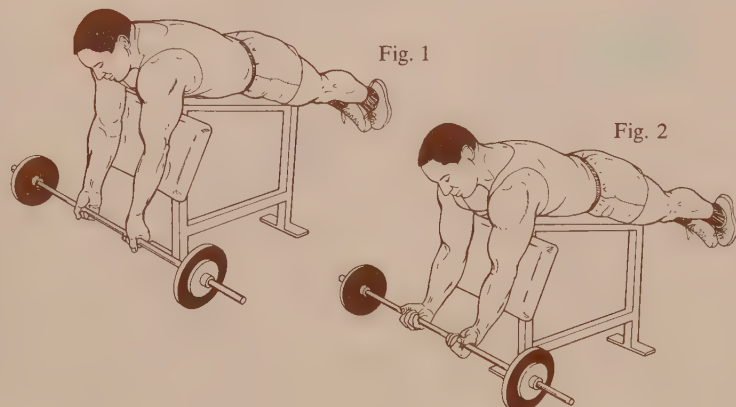
LOW PREACHER ONE ARM DUMBBELL PALM DOWN WRIST CURL

Outside forearms



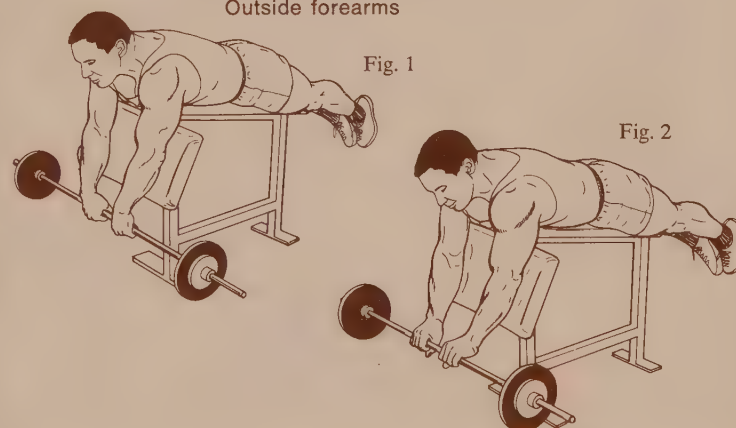
LOW PREACHER BARBELL PALMS UP WRIST CURL

Inside forearms



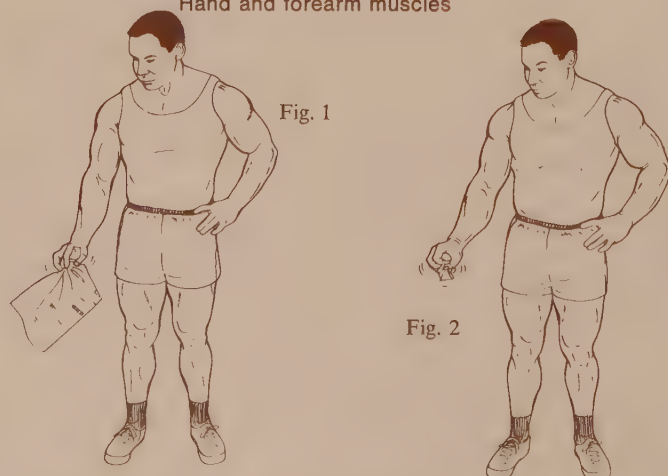
LOW PREACHER BARBELL PALMS DOWN WRIST CURL

Outside forearms



NEWSPAPER HAND AND FOREARM EXERCISE

Hand and forearm muscles



bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the dumbbell with your right hand. Pick the weight up and place your upper arm against the support pad of the machine. Keep your arm straight and your palm facing down throughout the exercise. Inhale and curl your right hand upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand, repeating the same number of repetitions.

▲ Low Preacher Two Dumbbell Palms Down Wrist Curl

Outside forearms

Place two dumbbells on the floor in front of a low preacher bench. Lie face down on the bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the dumbbells. Pick the weights up and place your upper arms against the support pad of the machine. Keep your arms straight and your palms facing down throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale.

▲ Low Preacher Barbell Palms Up Wrist Curl

Place a barbell on the floor in front of a low preacher bench. Lie face down on the bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the bar, using a palms up grip about sixteen inches wide. Pick the bar up and place your upper arms against the support pad of the machine. Keep your arms straight throughout the exercise. Inhale and curl your hands upward as high as you possibly can. Hold this position for a short period and return to starting position and exhale.

▲ Low Preacher Barbell Palms Down Wrist Curl

Place a barbell on the floor in front of a low preacher bench. Lie face down on the bench with your shoulders slightly ahead of the end of the bench. Reach down and grasp the bar, using a palms down grip about twelve inches wide. Pick the bar up and place your upper arms against the support pad of the machine. Inhale and curl your hands upward as high as you possibly

can. Hold this position for a short period and return to starting position and exhale.

▲ Newspaper Hand and Forearm Exercise

This exercise can be done numerous ways . . . standing, seated, lying, etc. The only thing required to perform the exercise is a fairly large piece of paper such as a sheet of newspaper. The object of the exercise is to start at one corner of the paper and commence to gather it into the palm of your hand. Continue gathering the paper and compress it into a small, compact unit in the palm of your hand.

▲ Rubber Ball Hand Squeeze

This exercise can be done numerous ways. It can be done standing, seated, with your hands in a large jacket pocket, etc. The only thing required is something like a tennis ball. The object of the exercise is to grasp the ball in the palm of your hand and tighten your grip on the ball as much as you can. Release the tension and tighten your grip again. It is best to do the same amount of repetitions with both hands.

▲ Hand Gripper Forearm Exerciser

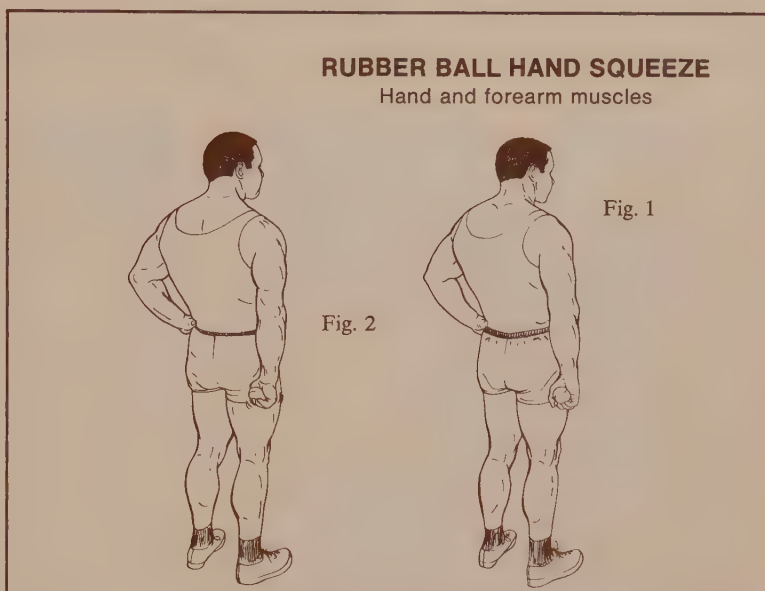
This exercise can be done numerous ways. It can be done standing, seated, etc. The object of the exercise is to grasp the handles as tightly as you can. Some grippers are designed so they are unable to completely touch the handles together while others are not set up as tight. Continue squeezing the handles together until your grip or forearms start to give out and then change to the other hand, repeating the exercise.

▲ Wrist Curl on High Pulley

Position a bench in front of a high pulley. Place the bench far enough away from the machine so either arm can support the weight stack throughout the entire exercise. Grasp the top pulley cable handle with your right hand and step forward of the bench and kneel on the floor, placing your right elbow on the bench. Keep your lower arm vertical and your palm facing in. Draw your right hand back towards the machine to the furthest comfortable position. Inhale and curl your hand forward and back as far as possible. Return to starting position and exhale. Do the prescribed number of repetitions with your right hand and then change positions to your left hand doing the same number of repetitions.

RUBBER BALL HAND SQUEEZE

Hand and forearm muscles



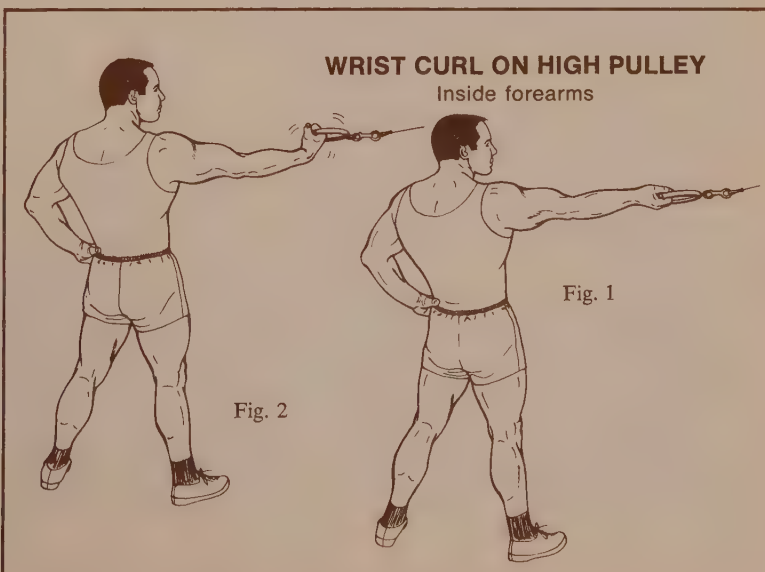
HAND GRIPPER FOREARM EXERCISE

Hand and forearm muscles



WRIST CURL ON HIGH PULLEY

Inside forearms



PHYSICAL DISPLAY



The fruits of labor. Bill Pearl, professional Mr. Universe 1961.

INTRODUCTION

Physical display is an art — an art that no serious body builder should take lightly. Body building is a combined art and science of developing health, strength and beauty of the human body to its ultimate capabilities. Learning to display the body so that its true masculine beauty and impressiveness can be appreciated is also an art. Any serious body builder who fails to realize this and neglects the perfecting of this art will never reach his full potential in the sport.

All too often men with outstanding physiques mount the posing platform inexperienced and unprepared. They not only fail to do themselves justice, but often lose to competitors who are not as well built but are better posers and can show their physiques to better advantage. Poor posing can make the body look ugly and grotesque. Why spend years trying to develop a beautiful physique and then not be able to have it appreciated because of poor display?

In order to reach the championship category in any type of competition, you must be thoroughly prepared and well skilled in all phases of that activity. Assuming that you have reached that stage in your training where you are now ready (or soon will be) for competition, it is essential you master the art of posing. There are many important factors about posing that can make the difference between being a happy winner or a disappointed loser.

Among the subjects to be explained are: selecting proper poses, use of mirrors, how to properly flex a muscle group, correcting posing faults, analyzing weak points, posing routines, platform posing, selecting proper trunks, posing for the camera, use of body oil, shaving and grooming, etc.

Proper application of the material contained in this guide will enable you to look and act like a champion when it counts. It will not only give you an unmistakable edge on your opponents but also will enable the audience and judges to fully appreciate the total impressiveness of your physique.

LEARNING TO POSE

There are two major reasons why the average body builder does not pose well: (1) insufficient amount of practice and (2) failure to consider the anatomical-structural relationship to their body. Lack of posing practice requires no explanation here as this subject will be covered later on. The understanding of anatomy, or lack of it, can make a tremendous difference in your development. Every body builder should have an *anatomy chart* for reference. Learning the origin and insertion points of the various individual muscles and understanding their exact function will allow the body builder to get maximum

benefit from his training program. The results will be a more symmetrical, complete development. It will also help to select poses which are ideally suited for his bone structure and muscular development.

It is not necessary for you to wait until you are ready for competition to become concerned with your posing routine. Practicing posing on a regular basis will improve your ability to voluntarily control a muscle, improve muscle tone, and burn unwanted calories. It can be used in place of a training session if necessary. Believe me, posing can become “hard work” in a hurry. A thirty minute posing session in which you are contracting and extending nearly every skeletal muscle will make you as stiff and sore as a new two-hour training program.

If you are truly interested in physique competition, it is absolutely essential that you have a professional posing routine. Posing practice should begin well in advance of a contest. Even if you have posed for several years you will need a *minimum* of three months diligent practice if you wish to pose well. Without continuous practice, everyone falls back into their bad posing habits.

The best way for a novice to begin posing is to study as many top physique photographs as you can find. Pick out poses that seem to fit your body type and try to duplicate them as closely as you can. A word of *caution*: do not select a pose just because your favorite physique star looks great in it. I have seen countless beginners try to duplicate Frank Zane's or Mike Mentzer's favorite poses when their physiques are completely opposite. The results . . . they look *terrible*. *Practice only those poses which compliment your type of bone structure and musculature.*

If you are fortunate enough to work out in a health club where you can get some good posing advice from an active competitor, then by all means do so. Perhaps your training buddies can help you select poses that are suitable for your type of development. Select about eight poses and practice these until you can do them in your sleep. At all times, be sure to study each pose as closely as possible to make sure you have every detail down to near perfection. It is important to learn to do each individual pose well before trying to blend them into a posing routine. Your first posing routine should then consist of the eight poses you have been practicing so diligently. As you become more proficient, and as you develop more mature muscularity, you will soon be able to add many new poses to your repertoire.

The best method I have found for correcting posing faults is a camera. Once you have decided on which poses bring out your best features, get out a camera and photograph each pose. You will be surprised to see how many faults you can find when you study the *whole picture*.



Front on, left hand on hip, right arm over head.



Front on, left hand on hip, right arm parallel and flexed.



Front on, double biceps, left leg to side.



Side tricep, left leg to rear.

USE OF MIRRORS

The most effective way to practice posing is in front of a good mirror. Ideally, it should be a large full length mirror of good quality glass that is free from distortion. Thirty minutes of diligent practice three or more days a week will soon find you beginning to pose fairly well. Practice only those poses that you are best suited for and always try to improve each pose so that it looks natural and is easy to fall into. Pay particular attention to your facial expressions and never tense the face. Flexing should be from the neck down. A twisted, painful expression on your face will completely destroy the beauty of a pose and distract from its overall impressiveness. Avoid excessive smiling, as this also is undesirable.

The fellows who spend the most time in front of the mirror practicing usually turn out to be the best posers. But merely standing in front of the mirror and admiring your physique is just what you *should not do*. Each time you appear in the looking glass make it a constructive session by analyzing your posing faults and weak points.

Aside from posing, the mirror can vividly reveal weak points in your physique. Let us suppose your upper back is somewhat under par. The mirror will reveal that your overhead poses lack the symmetry that they should because of your poor lat development. Specialization in your training will help improve this area, enabling you to add more dramatic poses to your routine and, of course, measurably improve your whole appearance.

CORRECTING POSING FAULTS

The most common error that any would-be poser makes is selecting poses which are not suited to his type of development. The novice poser often attempts a fancy pose, hoping it will look spectacular, but nearly always it looks clumsy and ridiculous. The experienced poser usually avoids fancy swirling, whirling poses that so few can master and look good while doing. Stick to the standard, easy-to-do poses that show off your type of development to best advantage.

Inexperience often sees the novice trying to show all the muscles possible without regard to form and symmetry. This looks awkward and displeasing and is not likely to impress the judges at a physique contest. The body should be posed as a complete unit with all the muscles *harmoniously* displayed. A position that emphasizes only the arms or chest and leaves the rest of the body looking unimpressive is poor posing. You should always try to accentuate your best features when posing but not at the expense of allowing the rest of the body to suffer by comparison.

Another frequent mistake is trying to show off all of the muscles at their largest muscularity in a single

pose. This is nearly impossible to do. Several different posing positions are necessary to display the body well. Never try to show the whole body with one special pose. Always strive for good body contour and better physique lines with each pose.

Trying to show off huge amounts of muscle without regard to proper stance and body symmetry can make even a great champion look bad. Look carefully at any picture of the top physiques; each pose they do looks like a work of art. They have complete control of every movement, plus the ability to contract their muscles to the maximum without strain. In fact, these posing masters actually look as though they were in a state of *semi-relaxed flexion*. On the other hand, the novice appears to be *over-flexing*. In an attempt to show as much muscle as possible, the beginner flexes much too hard, almost to the point of shaking. This type of forced flexion tends to freeze the action of the pose and stiffen the poser so that it is impossible to look natural and graceful as the champions do.

It takes months of diligent practice before a novice can develop a "flow" to his posing. Only after each pose begins to feel natural and comfortable should concentration be given to making certain muscle groups stand out. Only persistent practice will enable the novice poser to gain better knowledge and greater ease in doing certain poses. When naturalness in posing has been achieved, it is time to work on flexing to bring out maximum muscularity in each pose. The secret is being able to contract all the muscles without showing any visible signs of strain, particularly on the face.

HOW TO PROPERLY FLEX A MUSCLE GROUP

Whenever your face reflects the strain of a pose, you are over-flexing and trying too hard to bring out the muscularity of prominent body sections. Whenever you start contorting the face during a practice session, relax, take a few deep breaths and try again. This time gradually flex harder and harder without tensing the facial muscles. Do not try to achieve maximum contraction of all the muscles the first time you try to keep your face looking pleasant and relaxed. It takes time and practice to reach this stage of posing control.

When attempting to master a particular pose, start by going into the exact position of the pose *relaxed*. After you have got the foot and arm position and the rest of your body in perfect harmony as the pose requires, then flex.

Get the feeling of the pose before trying to flex the muscles involved. Start by tensing the legs, then the abdomen, chest, arms, etc., but do not try to achieve maximum contraction in all of the muscle groups on your first attempt. Once you feel that you have all of the muscle groups under control, try



Three-quarter, left leg out, left bicep flexed, right arm cocked.



Side, left leg bent, left hand on hip, right bicep flexed.



Straight on back.



Straight on back, left calf flexed, double biceps.

tensing them more and more until the desired stage of contraction has been reached. Relax and repeat this procedure several times, each time gradually tensing harder and harder until maximum contraction is reached while still keeping a natural facial expression. Never allow the body to lose the exact position and lines of the pose while tensing the muscle groups involved. Beginners often forget that it is the overall effect of the pose, and not just the flexing of individual muscles, that makes a good pose. Continued practice finds improvement with each attempt, and gradually the pose begins to take on a polished, natural look.

Do not become discouraged if your first attempts are clumsy and stiff. You will gradually achieve better control of the muscles and their awkwardness will disappear. Steady practice will soon give you the ability to contract your muscles to the limit and still retain easy, graceful lines. The only way to learn this ability to tense hard enough to bring out maximum impressiveness without straining is *practice . . . practice . . . practice!* To be a good poser, you must develop control of the muscles so that you can show them off at their best without any obvious effort. Anyone can learn to do this, but it takes work . . . and lots of it.

DEVELOPING A POSING ROUTINE

Assuming that you have selected several poses that are suitable to display your development, you are now ready to learn how to put them together in an orderly manner in the form of a *posing routine*. A good posing routine can be made up from as little as six poses. In fact, I have seen contests that only allow four poses: front, side, back, and one optional pose. No matter how many (or few) poses in a routine, the important consideration is that they should be blended together so that you move from one pose to the next in a smooth, graceful manner.

Study the sample routine illustrated in this guide. The poses are presented in a sequence to facilitate easy movement from one pose to the next without making any awkward breaks in the routine. You will notice that there is a minimum of foot movement but each pose is different and interesting when followed in the suggested sequence.

This sample routine is one that is suitable for *my development*, obviously, and not necessarily anyone else's. Your posing routine should use those poses which show off *your development* to its best advantage. The reason for using this series of poses was to show you how it is possible to move from one position to another in a harmonious manner. Notice in particular that similarity of foot and leg positions. It is important that you too standardize your leg and foot positions when learning a posing routine. Prac-

tice the leg stances that look best from the front, side, and back positions and then build your poses around these "basic" stances. You will find it is a great deal easier to get the upper body posed correctly when you do not have to worry about how to position your legs and feet. After you become an accomplished poser, you will be able to place your legs in many different positions effectively, but in the beginning, stick to your basic ones exclusively.

When the poses I have illustrated are followed in the exact sequence shown, it is easy to go from one pose to the next in a smooth manner merely by pivoting on the balls of the feet with the minimum of motion. Such smooth action looks graceful to the spectators and judges alike, and is easier for the poser by simplifying his movement from pose to pose. Most inexperienced posers do not realize *what you do between poses is just as important as the poses themselves!* Going from one pose to the next should be a pose in itself . . . call it a *moving pose*, if you like.

Remember this important fact — *you are being critically analyzed by both the spectators and judges every second you are on the posing platform* — so look your absolute best in everything you do. This includes moving from one pose to the next. Never allow the body to look ugly and unsymmetrical while changing poses. This does not mean that you have to actually flex between poses, just move gracefully and smoothly to your next pose while keeping this basic rule in mind: *always show your best features and cover up your weak points*. You will go a lot further in physique contests if you follow that basic rule at all times while on the posing platform.

One other point you should notice about the illustrated posing routine is that there are no front poses changing to direct back views. Most of these poses are three-quarter-view. These exemplify good symmetry as well as showing the body's muscular development to best advantage. It is very difficult for anyone, including the champions, to make a radical pose change such as a full front to a direct back view. Try posing in the manner I do . . . moving gradually from a front, to a side, to a three-quarter back pose, etc. If you wish to use a straight back view, go into it from a three-quarter pose as this eliminates a radical change in foot and leg positions and keeps the routine smooth.

PLATFORM POINTERS

As I mentioned earlier, you must practice each pose in your routine until it is second nature to you. After mastering your poses in front of a mirror, practice them without a mirror until you can go into each pose perfectly. When you are on the platform at a contest, there are no mirrors available to check your posing positions.



Twisting side, arms overhead, left leg to rear.



Front twisting double biceps, left leg to side.



Front kneeling, left leg straight, double biceps.



A master poser makes each pose a work of art.

Another important point that should be understood is how long to hold each pose. You can have an excellent posing routine, but if you hurry through it so rapidly that the judges are unable to view it thoroughly enough to give you the points you deserve, it is wasted effort. On the other hand, holding your poses too long will often make you shake from excessive tensing. Also, holding a pose longer than is necessary to appreciate its good features can allow the judges time to start looking for your bad features. Let the judges see what you want them to see and no more. Always pose to the judges, not the audience.

A good way to practice your posing is to hold each pose for six seconds. This seems to be adequate to display each pose thoroughly. Count slowly and steadily. You may want to hold each pose slightly longer, or shorter, if you have excellent control and no obvious weak points in your development.

Move from pose to pose rather slowly, taking about two seconds to get into the next pose. Fast, jerky movements are distracting; learn to develop a smooth rhythm in your posing routine so each pose flows to the next harmoniously. This can be accomplished if you will practice to music with a four-four beat. Consider your posing routine as you would a dance step.

Too many men over-pose. They use far too many poses and stay on the platform so long that it begins to bore the audience and judges alike. Keep your routine to no more than ten poses in a contest and do not stay on the platform for more than sixty seconds. "Always leave them wanting more," a famous performer once said. Another appropriate motto might be, "quit while you are ahead."

When on the posing platform, everything about your appearance is important. This means you should be well groomed, clean shaven, and have clear healthy looking skin. Always get a good haircut or trim a day or so before the contest.

Excess body hair should be removed with an electric razor a couple of days before the contest. Shaving with a regular safety razor is hazardous, because you can easily slash the skin without knowing until it is too late. Also, a skin rash often develops around tender areas and looks very bad. Using a dry safety razor (without soap and water) works better than a wet one. Be very careful, especially around the knees and ankles. If you can obtain an electric razor, such as a professional barber uses, you will find it the quickest, safest, and most convenient way to shave the body.

Acquiring a good tan will give the skin a healthy look and greatly enhance your muscular appearance. Get your tan sensibly and gradually, so you don't get that "burned" look. If no sun is available, a sun lamp

can be used. Here, again, use caution. Start well in advance of the contest and gradually tan. Do not overdo it on the face as the body should be slightly darker. It is easy to get burned on a lamp because you cannot see how much exposure you have had until several hours later. Wear sun glasses to protect the eyes from ultraviolet light, or eye damage can occur.

Watch your posture when on stage as a slouching, sloppy attitude will definitely cost you points. Always look your absolute best on stage whether standing in a group or posing on the platform. Never chew gum while on stage or nervously pull or tug at the trunks. Make sure they fit properly.

POSING TRUNKS

Invest in a good pair of posing trunks that will



Three-quarter side, left hand on hip, right arm straight.

help to show your physique to its best advantage. Choose a color that does not distract from you by causing the judges to be aware of the color. A bad pair of posing trunks can distract from your appear-

ance while posing and make you look less impressive. Get form-fitting trunks that are suited for your type of physique. Loose, baggy, wrinkled trunks that do not fit you properly are unsuitable for any type of stage display. It is important that you select the type of trunks that will enhance your development instead of hindering it.

Use good judgment when selecting the cut of your trunks. Too brief a suit looks just as improper as too big. Generally speaking, very brief trunks should not be worn at a contest. If you have extremely well developed abdominals and oblique muscles, wearing your trunks lower will prove advantageous. On the other hand, if you have a rather long torso, trunks with a high waist line near or above the navel will help shorten the appearance of your torso, usually making you appear more massive. This gives the



Three-quarter side, left hand on hip, right arm flexed.

whole physique a better balance.

If you have relatively long legs, then a pair of trunks that fit somewhat lower down on the thighs would be better. If you have a short torso, trunks

that are cut lower around the hips will prove best. Trunks that are cut high on the thigh are better for the short-legged appearing body builder. These are very general pointers that will give you some idea which type of posing trunks you are best suited for. Good professional type posing trunks are advertised in all the leading physique magazines.

Once you have obtained a good pair of trunks, take good care of them. Never work out in them as sweating will spoil their appearance and cause them to wear out quickly as well. Do not wash them in extremely hot water as the elastic material in them will be damaged. Wash them by hand in lukewarm water and then hang them up to dry so they are not stretched out of shape. Do not machine wash or dry them.

Unless you are employed as a professional model, avoid posing in the nude or in a posing strap. These are much too brief and very few such poses are used in today's physique publications. There are some who believe that any kind of body covering, no matter how brief, interferes with the physique lines and spoils the pose. Usually these people will refer to some famous statue (always completely nude) as an example, arguing that any type of body covering used would be distracting and ruin the appearance of the statue. This may or may not be true of the statue, but it is not true for the aspiring physique contestant who may one day learn to regret he ever posed in such attire. Most physiques are actually improved by wearing proper fitting trunks. Remember, a nude figure(or almost nude, such as when wearing a posing strap) cannot be disguised or made to look better proportioned as it does when wearing the right type of trunks.

POSING FOR THE CAMERA

Good, clear photographs are one of the most valuable tools a body builder can use to evaluate his development. You might be able to fool the mirror by not looking too closely at under-developed areas of your anatomy, but you will never fool the camera. Good posing will enable you to look your absolute best, but the camera will only record what is there. If you have poor legs, do not blame the photographer if they look bad in pictures. Learn to be a good objective *self-critic* and honestly examine your physical development. Look for weak points and then adjust your training to eliminate them.

Most posers feel perfectly at ease when posing in front of a mirror. However, when they appear before the camera or an audience, they get nervous and tighten up so they are unable to do their best. More posing practice will develop confidence and help them overcome this problem. When you have thoroughly mastered a series of poses that show off your physique to its best degree, confidence will re-

place nervousness and you will do fine. Posing without a mirror in front of your workout partners (once you have your routine planned) will give you both experience and confidence.

While it is true that some people are more photogenic than others, good posing and good photography are necessary if you want the best photographs. Many body builders become too mirror conscious. They practice posing in front of a mirror that has one overhead light. When standing directly under this type of lighting, large shadows are created which accentuate the muscles. While this looks impressive in the mirror, the same type of shadow effect cannot be duplicated exactly in a photograph. These darkened areas which accentuate the musculature would go completely black along with most of the body unless some fill-in lights were used to lighten up these deep shadows, giving a more realistic (but less impressive) view of the subject. This is one of the big reasons why fellows who observe impressive muscular detail in the mirror are often greatly disappointed when they are photographed and fail to see identical results. What you will see under insufficient (for photographs) lighting conditions, will not come across on film the same way.

PHOTO SESSIONS

In order to get the best possible pictures, you should be well prepared to go out for a shooting session. First, get as good a suntan as possible. Be sure to shave excess body hair. Add a small amount of *mineral oil* to your body just before posing to give the skin a good satin sheen. This will add highlights to your muscles and accentuate definition. Have someone apply oil to your back and do not forget the inside of the arms and the sides of the torso. Do not overdo the oil. Use enough to show good highlights. Be careful not to get any oil on your trunks. Never put oil on the face as this is of no value and looks very unflattering.

Before you actually leave for a shooting session, double check to see that you have the following items: posing trunks, oil, two towels (one to wipe hands of oil between posing and one to wipe perspiration off the face), a comb or brush, and a small pocket mirror. Make sure that you and the photographer know exactly when and where you are to meet. Be on time and be ready. Know exactly which poses you intend to use and know them well.

Make certain that your photographs are unblurred and well framed. These are the two greatest errors that unprofessional photographers make. The person taking the pictures should make sure the camera is perfectly focused and held steadily (preferably on a tripod). A photo that is unclear is of little value to anyone. Care should also be taken to be sure that the feet or part of the head are not chopped off.

The subject should be framed properly so that there is a liberal amount of space around him. Generally speaking, there should be less area underfoot than overhead; the side margins should be equal. One last point about your pictures: use a good setting. Outdoor pictures look best when the background is simple and uncluttered. Trees, cars, shrubbery or other similar items will greatly distract from a photograph by competing for attention with the model. A blank wall is better than posing against the street or a house. Plain backgrounds are best, such as posing on a hill with the sky as a background. Posing on the beach or a lake where you have a combination of sky and water is ideal. Whenever you are being photographed, look for a good, uncluttered background. Be sure to pick up any loose papers or trash that will show in the photo and do not forget your towel, carrying bag or anything else that might be distracting.



A master poser makes each pose a work of art, yet looks simple and easy to perform.

IN CLOSING

The art of posing is such an important subject that it is difficult to cover every minute aspect to its fullest degree. Nothing can replace hard work and plenty of posing practice if you wish to thoroughly master this art. It cannot be done in a matter of weeks, months, but may require years to become a truly masterful poser.

By carefully following the suggestions contained in this guide, you will see an immediate improvement in your posing and will be well on your way to becoming a good poser. You will never reach the top in the world of body building unless you learn to pose well.

Building a body that is healthy, strong, vigorous and beautifully developed is a goal well worth achieving. The art of posing, which enables you to display it in the best possible manner, will help you to inspire others to reach for the same worthy goals.

Pearl's Contest Career

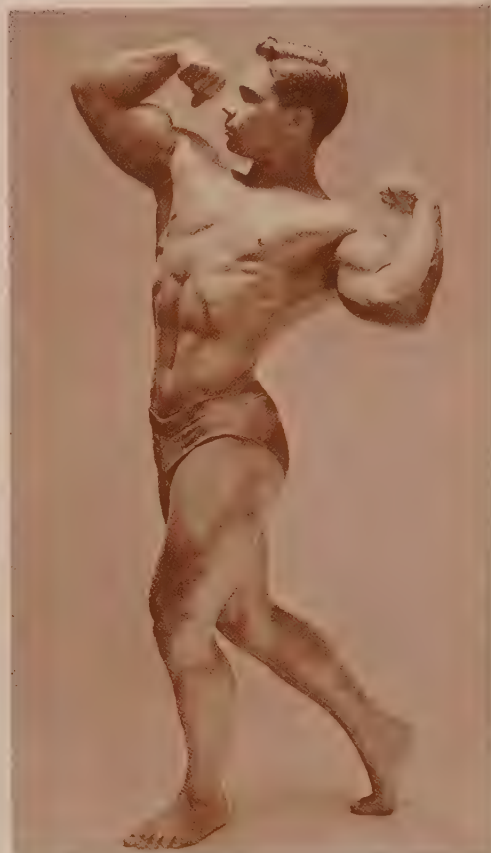


Professional Mr. Universe 1971. Bill Pearl, the end results of nearly twenty-five years of hard, continuous weight training.

Mr. America 1953



The biggest surprise of Bill's life came when they announced he was the current AAU Mr. America 1953.



One reporter told Bill he was happy he had won the contest because he looked more like a tennis player than a body builder.



Pearl's first comment to Stern was, "I am really going to have to start training now."

Mr. Universe 1953



A little more confidence but no better physique. Bill's symmetry and proportions were enough to win the amateur Mr. Universe 1953.



The judging panel for 1953 Mr. Universe. Some of the same men sat in judgment of Pearl's physique for nearly twenty years.



Basic, simple poses were all Pearl could use. His background was still too limited.

Mr. U.S.A. 1956



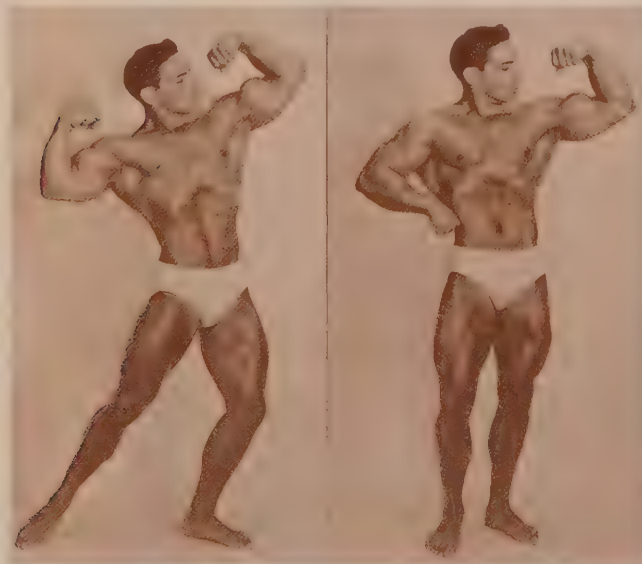
The three additional years of hard training are evident from these photos taken of Pearl at the Mr. U.S.A. 1956.



A pose originated by Bill.



A pose held over from his Mr. America days.

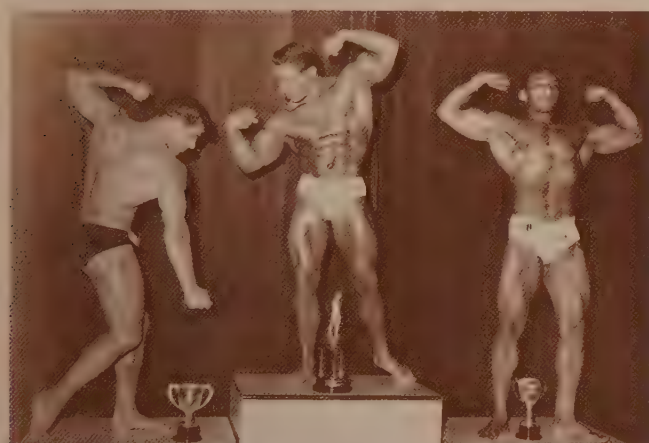


Pearl's posing and physique had improved tremendously.

Mr. Universe 1961

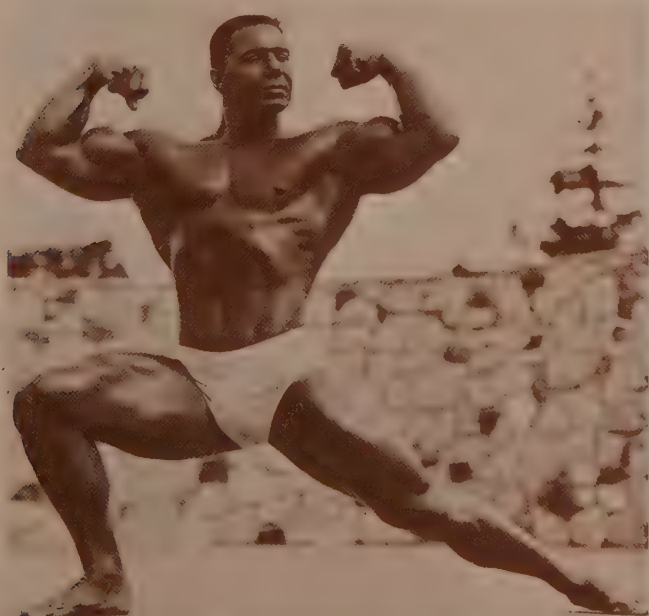


Oscar Heidenstam, in suit, the organizer of the NABBA Universe, stands next to Bill.



Pearl, upon receiving his trophy, strikes a pose with second and third place men.

By now Pearl's posing and physique were near perfection.



Pearl's physique grew more mature as the years passed. He was now setting the highest standards.

Few body builders had ever carried such massive size to that date.



The judging was 100% in Pearl's favor.

Mr. Universe 1967



Pearl, professional Mr. Universe at age 37, standing next to Schwarzenegger, amateur Mr. Universe at age 21. Both men were deserving winners, receiving 100 percent of the judges' votes.

Mr. Universe 1967

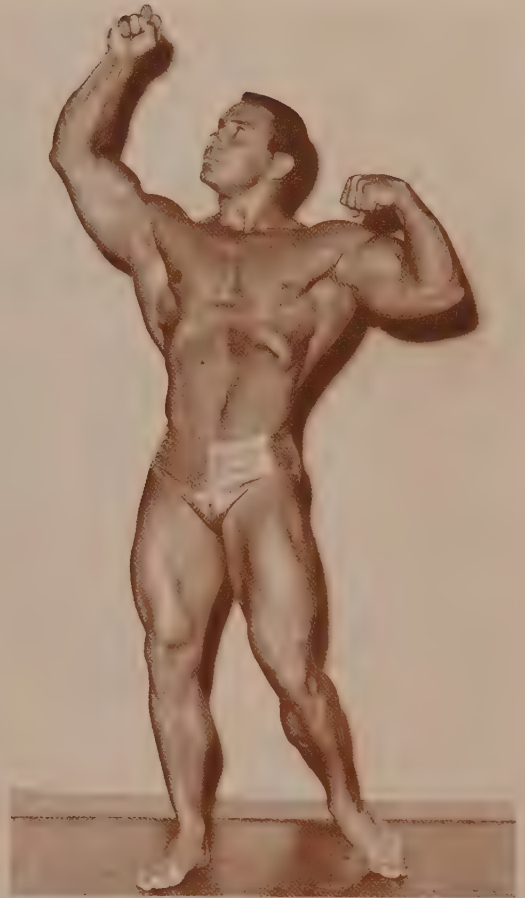


Pearl enjoying the fruits of labor.



A tour of Europe was in store for Pearl and Stern after the contest.

Pearl at a body weight of 232 pounds in hard, muscular condition.



Many people felt this was the optimum in human development.



Mr. Universe 1971



Pearl's final physique contest. Professional Mr. Universe 1971. Photo says more than words.

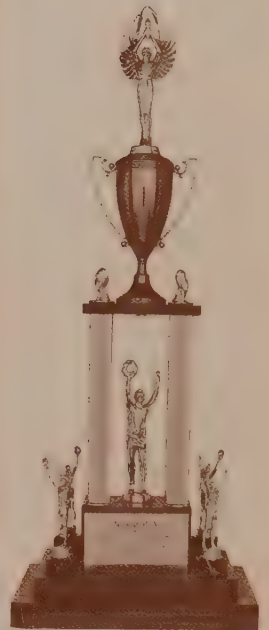
Mr. Universe 1971



A relaxed side shot of Bill Pearl by Stern.



Pearl, age 41, weighing 242 pounds.



Pearl was the youngest man to win the Mr. Universe and the oldest man to win the contest. Nineteen years brought him four Universe victories.





Two of Bill's former training partners and close friends, Chris Dickerson, former Mr. America and Mr. Universe; Tommy Bizzoco, former Mr. New Jersey.

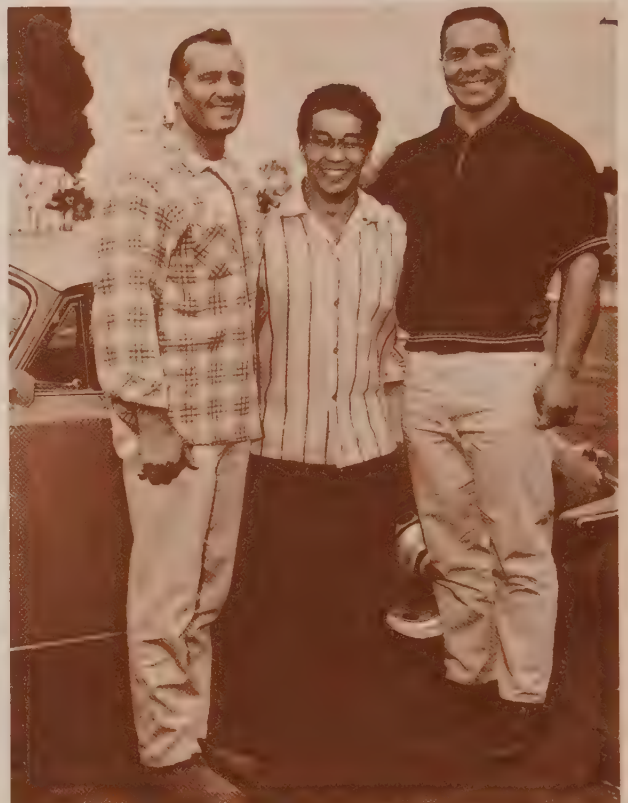


Frank Zane — Mr. America, Mr. Universe, Mr. Olympia — has one of the finest physiques ever developed. Frank has competed against and beaten nearly every top physique star. He is proof that a small-boned man has no limitations in body building. His stage presence is a true form of art. This man is a real credit to the sport.

Some students....some friends



Boyer Coe, former Mr. America and Mr. Universe, and Bill.



Bill, standing next to Tommy Kono, former world's weight lifting champion, and Clarence Ross, former Mr. America.



Dallas Long, M.D., pressing a pair of 235-pound dumbbells.



Dallas Long, M.D., former world's record holder in the shot put.



Bill and Jim Boeke, professional football player for the Los Angeles Rams.



Two of Pearl's favorite students, Tommy Bizzoco, former Mr. New Jersey, and Chris Dickerson, former Mr. America and Mr. Universe.

Some students....some friends



Ray Routledge, former Mr. America and Mr. Universe of 1961, sharing the spotlight with his coach, Bill Pearl.



Pat Casey after bench pressing a world's record of 632 pounds.



Pat Casey, former world's strongest man, doing incline presses with two 240-pound dumbbells.



Pearl standing next to George Arax, professional physique photographer, and Leo Stern.

Some students....some friends

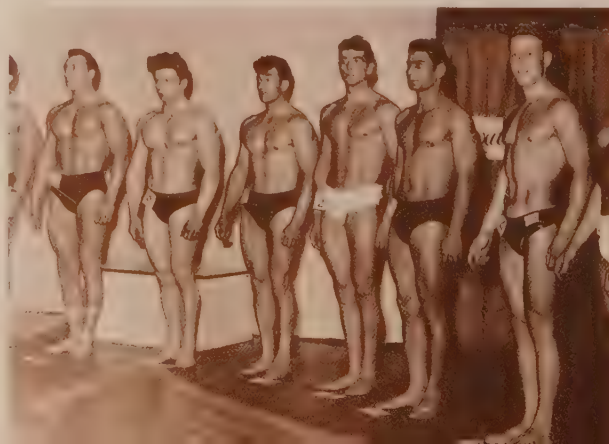


Dennis Tinerino, former Mr. America, another student and close personal friend of Pearl's.



Clinton Beyrele, left, former Mr. U.S.A., and lovely young lady, and Dave Johns, former Mr. America,. Both men have trained with Bill Pearl for years.

Brandt Clark reduced his body weight from 282 pounds to 185 pounds for his winning of the Mr. Los Angeles physique contest. Brandt is a personal friend and trained with Pearl for several years.

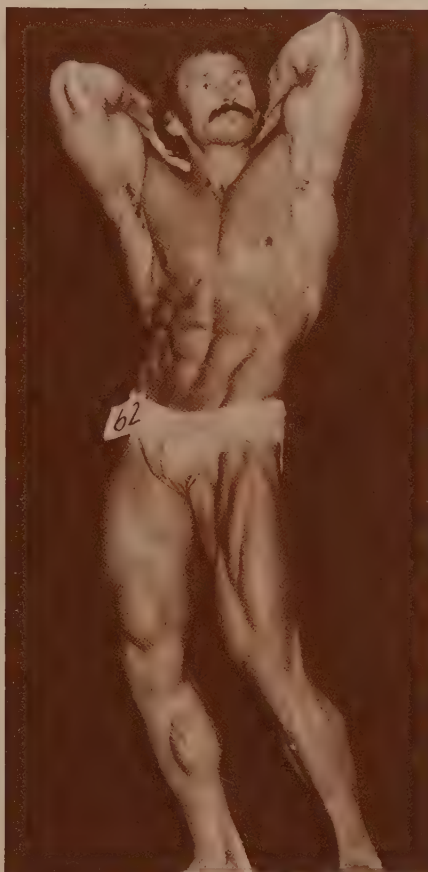


A portion of the lineup for the 1953 NABBA Mr. Universe contest. Sean Connery is Number 24. He became better known for Number 007.

Some students....some friends



Steve Reeves, former Mr. America and Mr. Universe, was a guiding light for Pearl's career in the early stages.

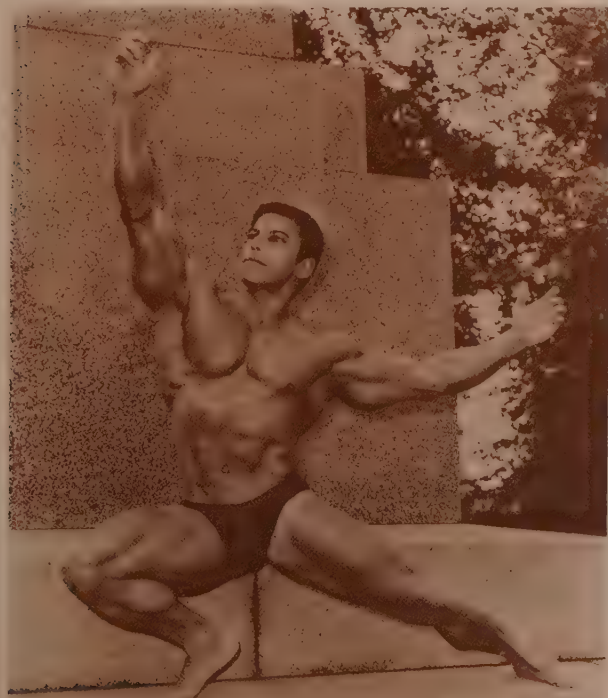


Fred Shandor, winner of countless championships, traveled thousands of miles for years to personally train under Pearl's watchful eye.



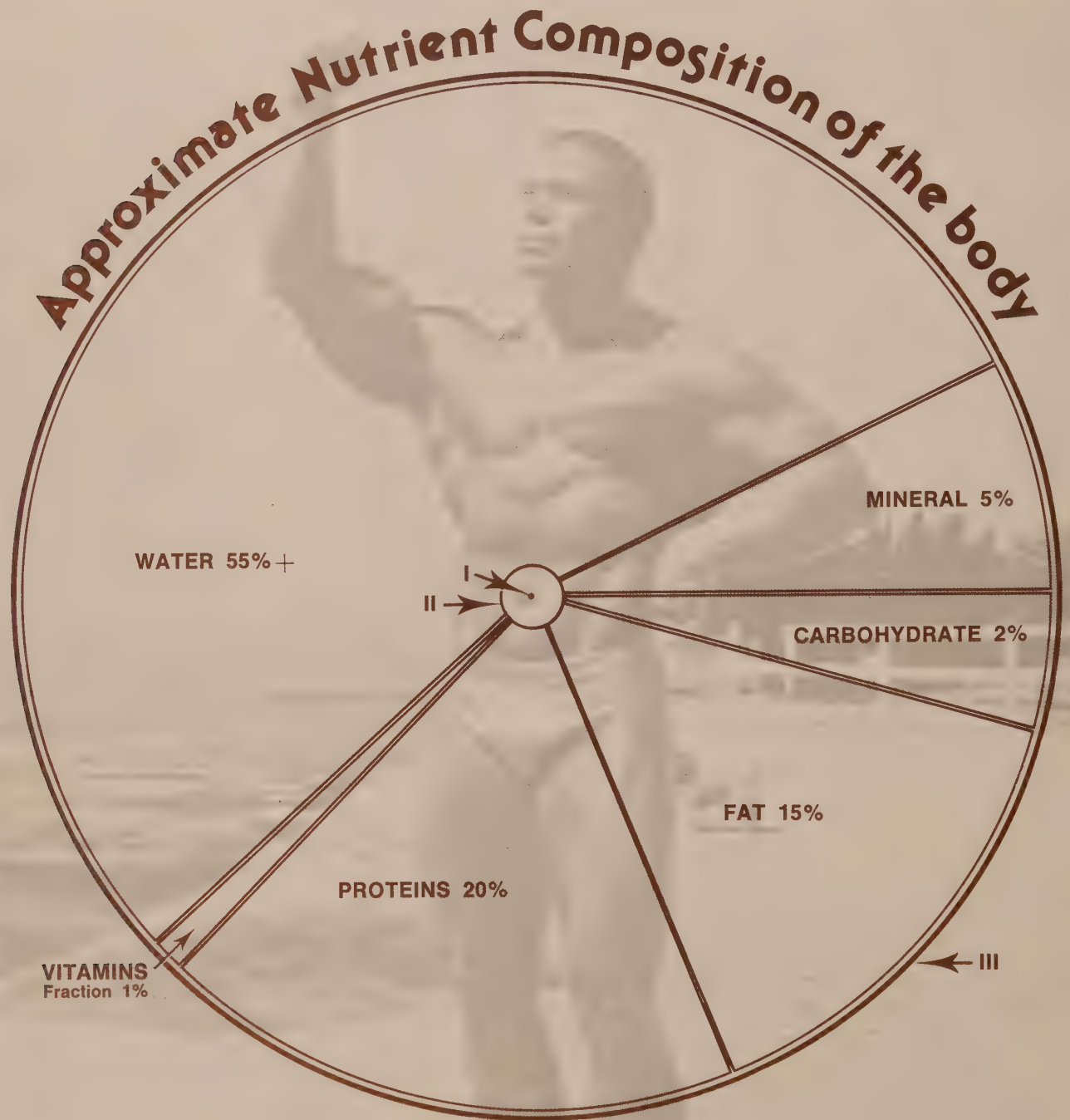
Jim Morris, former Mr. America, the oldest man ever to win the Mr. America title at age 37. Jim competed in the 1976 Mr. Universe contest, winning his height class and second over all at age 42. Still another pupil of Pearl's.

Chris Dickerson came to Pearl specifically with the intention of becoming a Mr. America winner. Chris was the first Negro to ever win the AAU Mr. America title.



A magnificent pose by a magnificent person, Jim Morris.

Basic NUTRITIONAL Facts



Spheres I, II, and III represent approximately 1,000 times the actual sizes of:

- I = 1 MICROGRAM
- II = 1 MILLIGRAM
- III = 1 GRAM

The knowledge of nutrients and their functions in the body is necessary for understanding the importance of good nutrition. The six nutrients — carbohydrates, fats, proteins, vitamins, minerals, and water — are present in the foods we eat and contain chemical substances that function in one or more of three ways: they furnish the body with heat and energy, they provide material for growth and repair of body tissues, and they assist in the regulation of body processes.

Each nutrient has its own specific functions and relationship to the body, but no nutrient acts independently of other nutrients. All of the nutrients must be present in the diet in varying quantities in order for the body to maintain basic life processes. Although all persons have need for the same nutrients, the amounts of the nutrients required by an individual are influenced by age, sex, body size, environment, level of activity, and nutritional status.

CARBOHYDRATES

Carbohydrates are the chief source of energy for all body functions and muscular exertion and are necessary to assist in the digestion and assimilation of other foods. Carbohydrates provide us with immediately available calories for energy by producing heat in the body when carbon in the system unites with oxygen in the blood stream. Carbohydrates also help regulate protein and fat metabolism; fats require carbohydrates for their breakdown with the liver.

The principal carbohydrates present in foods are sugars, starches, and cellulose. Simple sugars, such as those in honey and fruits, are very easily digested. Double sugars, such as table sugar, require some digestive action but they are not nearly as complex as starches, such as those found in whole grain. Starches require prolonged enzymatic action in order to be broken down into simple sugars for digestion. Cellulose, commonly found in the kinds of fruits and vegetables, is largely indigestible by humans and contributes little energy value to the diet.

All sugars and starches are converted by digestive juices to a simple sugar called "glucose." Some of this glucose, or "blood sugar," is used as fuel by tissues of the brain, nervous system, and muscles. A small portion of the glucose is converted to glycogen and stored by the liver and muscles; the excess is converted to fat and stored throughout the body as a reserve source of energy. When fat reserves are reconverted to glucose and used for body fuel, weight loss results.

Overindulgence in starchy and sweet foods may crowd out other essential foods from the diet and can therefore result in nutritional deficiency as well as in obesity.

Differences in basal metabolism, amount of activity, size, and weight will influence the amount of carbohydrates the body needs to get from an out-

side source. However, a total lack of carbohydrates may produce ketosis, loss of energy, depression, and breakdown of essential body protein.

FATS

Fats, or liquids, are the most concentrated source of energy in the diet. When oxidized, fats furnish more than twice the number of calories per gram furnished by carbohydrates or protein. One gram of fat yields approximately nine calories to the body.

In addition to providing energy, fats act as carriers for the fat-soluble vitamins, A, D, E, and K. By aiding in the absorption of Vitamin D, fats help make calcium available to body tissues, particularly to the bones and teeth. Fats are also important for the conversion of carotene to Vitamin A. Fat deposits surround, protect, and hold in place such organs as the kidneys, heart, and liver. A layer of fat insulates the body from environmental temperature changes and preserves body heat. This layer also rounds out the contours of the body. Fat prolongs the process of digestion by slowing down the stomach's secretions of hydrochloric acid. Thus fats create a longer-lasting sensation of fullness after a meal.

The substances that give fats their different flavors, textures, and melting points are known as the "fatty acids." There are two types of fatty acids, saturated and unsaturated. Other sources of fat are milk products, eggs, and cheese.

Although a fat deficiency rarely occurs in man, such a deficiency would lead to a deficiency in the fat-soluble vitamins. A deficiency of fatty acids may produce eczema or other skin disorders. An extreme deficiency could lead to severely retarded growth.

Excessive amounts of fat in the diet may lead to abnormal weight gain and obesity if more calories are consumed than are needed by the body. In addition to obesity, excessive fat intake will cause abnormally slow digestion and absorption, resulting in indigestion. If a lack of carbohydrates is accompanied by a lack of water in the diet, or if there is a kidney malfunction, fats cannot be completely metabolized and may become toxic to the body.

PROTEIN

Next to water, protein is the most plentiful substance in the body. Protein is one of the most important elements for the maintenance of good health and vitality and is of primary importance in the growth and development of all body tissues. It is the major source of building material for muscles, blood, skin, hair, nails, and internal organs, including the heart and the brain.

Protein is needed for the formation of hormones, which control a variety of body functions such as growth, sexual development, and rate of metabolism. Protein also helps prevent the blood and tissues from becoming either too acid or too alkaline and

helps regulate the body's water balance. Enzymes, substances necessary for basic life functions, and antibodies, which help fight foreign substances in the body, are also formed from protein. In addition, protein is important in the formation of milk during lactation and in the process of blood clotting.

As well as being the major source of building material for the body, protein may be used as a source of heat and energy, providing four calories per gram of protein. However, this energy function is spared when sufficient fats and carbohydrates are present in the diet. Excess protein that is not used for building tissue or energy can be converted by the liver and stored as fat in the body tissues.

During digestion the large molecules of proteins are decomposed into simpler units called "amino acids." Amino acids are necessary for the synthesis of body proteins and many other tissue constituents. They are the units from which proteins are constructed and are the end products of protein digestion.

The body requires approximately twenty-two amino acids in a specific pattern to make human protein. All but eight of these amino acids can be produced in the adult body. The eight that cannot be produced are called "essential amino acids" because they must be supplied in the diet. In order for the body to properly synthesize protein, all the essential amino acids must be present simultaneously and in the proper proportion. If just one essential amino acid is missing, even temporarily, protein synthesis will fall to a very low level or stop altogether. The result is that all amino acids are reduced in the same proportion as the amino acid that is low or missing.

Foods containing protein may or may not contain all the essential amino acids. When a food contains all of the essential amino acids, it is termed "complete protein." Foods that lack or are extremely low in any one of the essential amino acids are called "incomplete protein." Most meats and dairy products are complete-protein foods, while most vegetables and fruits are incomplete protein foods. To obtain a complete-protein meal from incomplete proteins, one must combine foods carefully so that those weak in an essential amino acid will be balanced by those adequate in the same amino acid.

Protein requirements differ according to the nutritional status, body size, and activity of the individual. To figure out individual protein requirements, a good guide line is to divide body weight by two, and the results will indicate the approximate number of grams of protein required each day.

Protein deficiency may lead to abnormalities of growth and tissue development. The hair, nails, and skin especially will be affected, and muscle tone will be poor. In adults, protein deficiency may result in lack of vigor and stamina, mental depression, weakness, poor resistance to infection, impaired healing of wounds, and slow recovery from disease.

Loss of body protein occurs as a result of particular bodily stresses, such as surgery, hemorrhage, wounds, or prolonged illness. At times of stress, it is necessary to consume extra protein in order to rebuild or replace used or worn out tissues. However, excessive intake of protein may cause fluid imbalance.

WATER

Water is not only the most abundant nutrient found in the body (accounting for roughly two-thirds of body weight), it also is by far the most important nutrient. Responsible for and involved in nearly every body process, including digestion, absorption, circulation, and excretion, water is the primary transporter of nutrients throughout the body and is necessary for all building functions in the body. Water helps maintain a normal body temperature and is essential for carrying waste material out of the body.

Nearly all foods contain water that is absorbed by the body during digestion. Fruits and vegetables are especially good sources of chemically pure water, which is 100 percent pure hydrogen and oxygen.

The average adult body contains approximately 45 quarts of water and loses about three quarts daily through excretion and perspiration. Rate of water loss depends almost entirely upon level of activity and environmental conditions and may range from less than one quart per day for a sedentary person in a temperate climate to more than ten quarts per day in a desert. If severe deficiencies are not corrected as soon as possible, salt depletion and dehydration will occur, eventually resulting in death.

Distilled water is the only "pure" water there is, being found in nature in the form of rainwater and in all fruits and vegetables. Although rainwater may be contaminated by atmospheric pollutants it picks up on the way to the ground.

VITAMINS

All natural vitamins are organic food substances found only in living things, that is, plants and animals. There are about 20 substances that are believed to be active as vitamins in human nutrition. Each of these vitamins is present in varying quantities in specific foods, and each is absolutely necessary for proper growth and maintenance of health. With a few exceptions, the body cannot synthesize vitamins; they must be supplied in the diet or in dietary supplements.

Vitamins have no caloric or energy value but are important to the body as constituents of enzymes, which function as catalysts in nearly all metabolic reactions.

As such, vitamins help regulate metabolism, help convert fat and carbohydrates into energy, and assist in forming bone and tissues. Vitamins are not components of major body structures but aid in the

building of these structures.

MINERALS

Minerals are nutrients that exist in the body and in food in organic and inorganic combinations. Approximately 17 minerals are essential in human nutrition. Although only four or five percent of the human body weight is mineral matter, minerals are vital to overall mental and physical well-being. All tissues and internal fluids of living things contain varying quantities of minerals. Minerals are constituents of the bones, teeth, soft tissue, muscle, blood, and nerve cells. They are important factors in maintaining physiological processes, strengthening skeletal structures, and preserving the vigor of the heart and brain as well as all muscle and nerve systems.

Minerals act as catalysts for many biological reactions within the human body, including muscle response, the transmission of messages through the nervous system, digestion, and metabolism or utilization of nutrients in foods. They are important in the production of hormones.

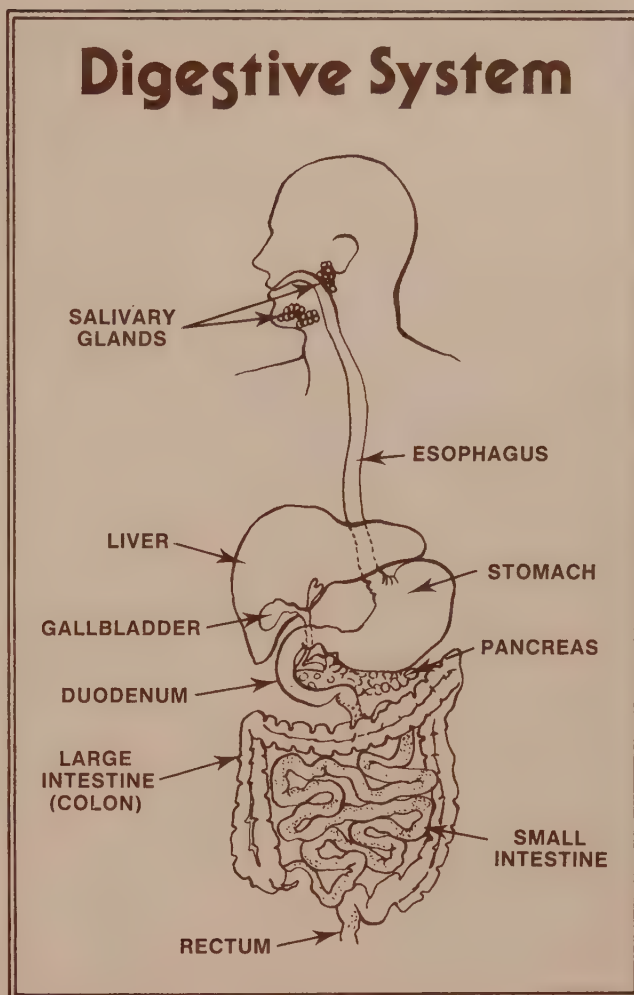
Minerals help to maintain the delicate water balance essential to the proper functioning of mental and physical processes. They keep blood and tissue fluids from becoming either too acid or too alkaline and permit other nutrients to pass into the bloodstream. They also help draw chemical substances in and out of the cells and aid in the creation of antibodies.

DIGESTION

Digestion is a series of physical and chemical changes by which food, taken in to the body, is dissolved and broken down chemically through the action of secretions containing enzymes in preparation for absorption from the intestinal tract into the blood stream. These changes take place in the mouth, pharynx, esophagus, stomach, small intestine and large intestine.

The active materials in the digestive juices which cause the chemical breakdown of food are called "enzymes," complex proteins that are capable of inducing chemical changes in other substances without changing themselves. Each enzyme is capable of breaking down only a single specific substance. For example, an enzyme capable of breaking down fats cannot break down proteins or carbohydrates, or vice versa. Enzymatic action originates in four areas of the body: the salivary glands, the stomach, the pancreas, and the wall of the small intestine.

Digestion actually begins in the mouth where chewing breaks large pieces of food into smaller pieces. The salivary glands in the mouth produce saliva, a fluid that moistens food for swallowing and which contains ptyalin, the enzyme necessary for carbohydrate breakdown. The masticated food passes back to the pharynx under voluntary control



but from there on and through the esophagus, the process of swallowing is carried on by peristalsis, a slow wave-like motion occurring along the entire digestive tract. Peristalsis moves the food into the stomach.

Active chemical digestion begins in the middle portion of the stomach where the food is mixed with gastric juices containing hydrochloric acid, water, and enzymes that break up protein and other substances.

After one to four hours, depending upon the combination of foods ingested by the system, peristalsis pushes the food, now in liquid form of chyme, out of the stomach and into the small intestine. Food-stuffs leave the stomach and enter the small intestine in the following order: carbohydrates, protein, and fat, which takes the longest to digest.

When chyme enters the small intestine, the pancreas secretes its digestive juices. If fats are present in the food, bile, an enzyme produced by the liver and stored in the gallbladder, is also secreted. Bile separates the fat into small droplets so that the pancreatic enzymes can break it down. The pancreas also secretes a substance that neutralizes the digestive acids in the food, and it secretes additional enzymes that continue the breakdown of proteins and carbohydrates.

The remaining undigested products enter the large intestine and eventually are excreted. No digestive enzymes are secreted in the large intestine, and little change occurs there except for the absorption of water.

ABSORPTION

Absorption is the process by which nutrients in the form of glucose (from carbohydrates), amino acids (from protein), and fatty acids and glycerol (from fats) are taken up by the intestines and passed into the bloodstream to facilitate cell metabolism.

Absorption takes place primarily in the small intestine. The lining of the small intestine is covered with small fingerlike projections called "villi." These villi contain lymph channels and tiny blood vessels called "capillaries" that are the principal channels of absorption, depending upon the type of nutrients. Fats and fat-soluble vitamins move through the blood to the cells. Other nutrients are carried away from the villi by the capillaries, which funnel them into the portal vein leading to the liver.

In the liver, many different enzymes help change the nutrient molecules into new forms for specific purposes. Unlike earlier changes, which prepared nutrients for absorption and transport, the reactions in the liver produce the products needed by individual cells. Some of the products are used by the liver itself, but the rest are held in storage by the liver, to be released into the body as needed. The remainder go into the bloodstream, where they are picked up by the cells and put to work. Water-soluble vitamins and minerals are also absorbed into the bloodstream in the small intestine.

METABOLISM

At this point the handling of food within the body has reached its final stage. The process of metabolism involves all the chemical changes that nutrients undergo from the time they are absorbed until they become a part of the body or are excreted from the body. Metabolism is the conversion of the digested nutrients into building material for living tissue or energy to meet the body's needs.

Metabolism occurs in two general phases that occur simultaneously, anabolism and catabolism. Anabolism involves all the chemical reactions that the nutrients undergo in the construction or building up of body chemicals and tissues, such as blood enzymes, hormones, glycogen, and others.

Catabolism involves the reactions in which various compounds of the tissues are broken down to supply energy. Energy for the cells is derived from the metabolism of glucose, which combines with oxygen in a series of chemical reactions to form carbon dioxide, water and cellular energy. The carbon dioxide and water are waste products carried away from the cells by the blood stream. Energy can also

be derived from the metabolism of essential fatty acids and amino acids, although the primary effect of the metabolism of amino acids is to provide material for growth and the maintenance and repair of tissues. The waste products of essential fatty acid and amino acid metabolism are also carried away from the cells by the blood stream.

The process of metabolism requires that extensive systems of enzymes be maintained to facilitate the thousands of different chemical reactions and regulate the rate at which these reactions proceed. These enzymes often require the presence of specific vitamins and minerals to perform their functions.

NUTRITIONAL SUPPLEMENTS FOR BETTER VIRILITY

Many people are not aware of the important role proper nutrition plays in improving sexual vitality and virility. Adequate nourishment is needed to stimulate the hormonal production of the endocrine glands: this increased hormone secretion results in increased sexual vigor.

Endocrine glands, such as thyroid, pituitary, testes, and ovaries, can be specifically nourished by certain nutrients. For example, the B-complex vitamins enter into the cellular and tissue construction of the thyroid gland and act as "energizers" to increase the hormonal flow. An excellent way of obtaining B factors is mixing two tablespoons of brewer's yeast and two tablespoons of wheat germ with vegetable juice and drinking it with the evening meal. This combination is assimilated by the body in about an hour.

An iodine-deficient thyroid gland may cause a decreased interest in sex, because of a decreased rate of hormone production. One teaspoon of sea salt or kelp may increase the thyroid's metabolism and promote a flow of hormones. In addition, the amino acid tyrosine, from which the thyroid hormone thyroxine is made, helps activate sluggish thyroids. The combination of one tablespoon each of brewer's yeast, wheat germ, and blackstrap molasses mixed with fruit juices and taken three times daily may help the work of tyrosine.

The pituitary gland is responsible for the functioning of the male and female sex hormones, thus providing sex drive for body and mind. The B-complex vitamins are recommended to ensure against impotence and premature menopause.

Zinc and Vitamin E are also important in maintaining sexual powers. Zinc deficiency may cause retarded genital development. This mineral is found in highly concentrated form throughout the entire male reproductive system. Vitamin E is often referred to as the "sex vitamin." It may help restore the sexual organs, help stimulate the production of new sperm, and help rejuvenate the sex glands.



DAILY CALORIE REQUIREMENTS

BODY WEIGHT	SUSTAINING	GAINING
101-102	2500	3750
104-107	2550	3825
108-111	2600	3900
112-115	2650	3975
116-119	2700	4050
120-123	2750	4125
124-127	2800	4200
128-131	2900	4350
132-135	3000	4500
136-139	3066	4600
140-143	3133	4700
144-146	3200	4800
147-149	3266	4900
150-152	3333	4950
153-157	3400	5100
156-158	3450	5175
159-161	3500	5250
162-165	3550	5325
166-169	3600	5400
170-173	3650	5475
174-177	3700	5550
178-181	3750	5625
182-185	3800	5700
186-189	3850	5775
190-193	3900	5850
194-197	3950	5925
198-201	4000	6025
202-205	4050	7125
206-209	4100	7200
210-213	4150	7225
214-217	4200	7350
218-221	4250	7425
222-225	4300	7500

This calorie list is based on the "standard" man aged twenty-five to thirty, living in a temperate climate, and moderately active in both business or home and at time of leisure.

There are certain adjustments on *sustaining* and *gaining* caloric allotments as shown in this list as follows:

OLD AGE — At older ages, calorie allowances should be reduced on the basis of 7½% for every decade (10-year period) beyond the age of 30.

CLIMATE — Increase or decrease caloric allowance by 5% for every increase or decrease of 10° C. in the mean external temperature of the zone you are living.

ACTIVITY — The outstanding factor causing variability in calorie needs is physical activity. The usual maximum for men doing heavy work during business, at home or during their leisure time will be around 20% to 25%. Lower values than those shown on the list will apply to persons who require little energy.

PSYCHOLOGICAL FACTOR — If you are a "nervous" type person who has to be active at all times, increase allowance shown on the list by 10% to compensate for this added energy drain. On the other hand, if you are a fairly calm, quiet, and slow-moving person, decrease by 5% to 8%.



This remarkable physique is the result of heredity, proper training, living habits, and mental attitude.

The Heart and Weight Training

WHAT YOU SHOULD KNOW ABOUT THE HEART

It is a well proven fact that constant physical activity keeps the heart strong and healthy. Not only is exercise recommended to prevent heart attacks, it is frequently used by many medical doctors to treat patients who have suffered heart attacks.

The action of the heart is that of a powerful pump which distributes life giving blood and oxygen to every cell in the body. The heart is a hollow muscular organ. Like all other muscles, the heart becomes stronger and more efficient with work. Exercising the heart means requiring it to handle a greater amount of blood in a given time than it would ordinarily handle under normal, nonactive or restful conditions.

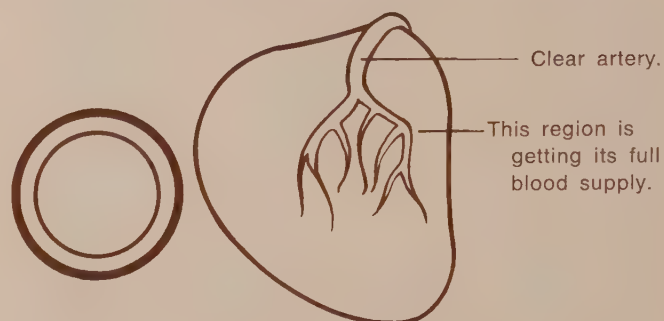
During mild physical activity or exercise, the blood output of the heart may double. This additional activity helps the normal heart to remain healthy. It also increases the circulation, thereby supplying the entire body with more nutrition and oxygen, and it also hastens the removal of fatigue acids and waste products from the body. Every organ and tissue in the body reacts favorably when the heart action is more efficient. This includes the brain, the skin and the entire digestive system.

Exercise enlarges all the coronary arteries which feed the heart. It increases collateral (auxiliary) circulation so that more than one blood vessel will supply a given area of the heart. In other words, exercise helps provide a backup system of blood vessels that can take over if the blood supply becomes blocked in one artery, thereby preventing a possible heart attack. Exercise allows the heart to extract oxygen from the blood more efficiently. And among its other multitude of benefits, exercise lowers the blood pressure.

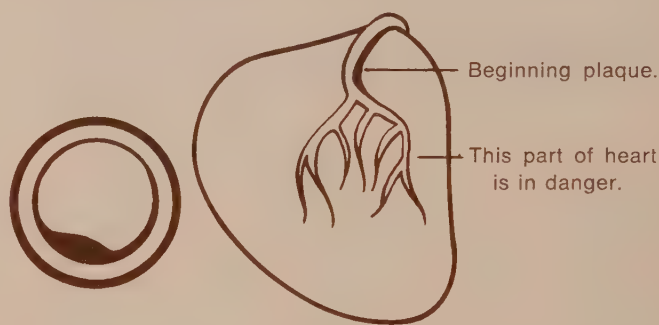
HOW THE NORMAL HEART FUNCTIONS

Although medical texts state that the mammalian heart (this includes humans) is divided into four cavities, it is generally classified as having two major divisions: the right and left side. The two sides of the heart are so intimately united that they are stimulated and activated by the same muscles and valves simultaneously.

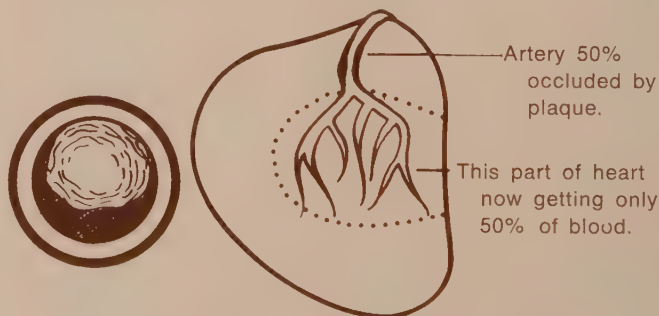
The heart is about the size of a human fist or a small rubber ball. In an adult male it weighs about from 250 to 350 grams. In the average adult, it beats about 40 million times a year. In an average size person, it pumps 4,300 gallons of blood daily



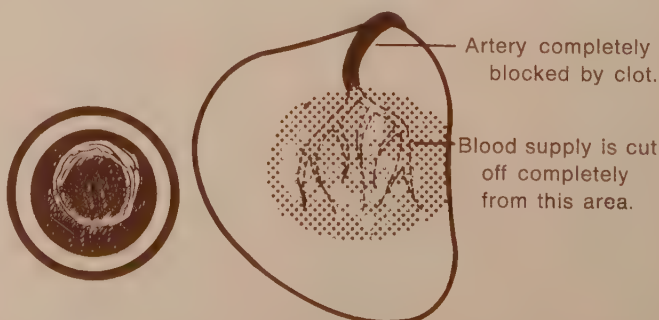
A SAFE, HEALTHY HEART. Artery (cut-away view at top left) is clean, normal, free of plaques. Clear artery carries full blood supply to a particular region of heart (right).



TROUBLE AHEAD. A plaque begins to form on the wall of the artery. The heart region is now in danger. Once a plaque has a foothold, increasing its size is not difficult.



DANGEROUS CONDITION. In the artery, the plaque spreads and becomes encrusted. The artery is 50% occluded and the heart region is now receiving only 50% of needed blood.



CORONARY ATTACK! The artery is choked by a blood clot, the blood supply is completely stopped in the specific heart region, and death is a definite possibility.

through more than 60,000 miles of blood vessels.

If you were to grasp a rubber ball in one hand and squeeze it as hard as possible 70 times per minute for about 30 minutes each day, your hand would become so strong in a few months that you could almost crush an average person's hand during a handshake. The muscles of the heart become stronger in a similar manner. When the muscles of the heart contract, most of the blood in the right side of the heart is pumped into the lungs where the carbon dioxide (waste) is removed and it takes on a fresh supply of oxygen. At the same time the purified blood — already in the lungs — flows to the left side of the heart where it is forced by the muscular action of the heart into the arteries that eventually carry it all through the entire circulatory system.

The blood flow is continuous and always goes in the same direction — its direction being controlled by a series of one-way valves located in the heart, the arteries the capillaries, and the veins. At rest, blood is pumped from the healthy heart under a pressure of about two-and-a-half ($2\frac{1}{2}$) pounds to the square inch (this is more than double the pressure needed in the average home heating system). Each pumping action forces about three ounces of blood — 70 times per minute — into the circulatory system. The job of the heart is to pump blood into the circulatory system. It has been called the finest pump known to mankind.

The function of blood is to carry oxygen, glucose, fats, vitamins, minerals, red cells, white cells and other elements to every part of the system — and to deliver carbon dioxide to the lungs and waste matter to the kidneys for filtering and removal from the body.

A trained athletic heart is 25% to 50% more efficient than the heart of an average person. Because the trained heart is far more muscular, it will beat between 6 and 12 million fewer times per year. It works less; rests more, and consequently takes a much longer time to wear out. A well trained athletic heart is so muscular that it can pump the same amount of blood with 50 beats per minute that the average heart pumps with 75 beats per minute.

WHAT YOU SHOULD KNOW ABOUT NORMAL BLOOD CIRCULATION

The discovery of the circulation of blood is generally attributed to the English physician Harvey in 1628. However, the Chinese made the same observation some 800 years previously. The early Greek physicians thought it was air that traveled through the circulatory system. It does, of course, but it is the blood that transports the oxygen to every cell in the body.

Although a rhythmically beating heart is the

most important factor in generating the necessary pressure to distribute blood throughout the system, it cannot do the entire job by itself. Three other factors are necessary:

1. A proper condition of the blood vessels; without this an active heart would be of no avail.
2. An adequate amount of circulating blood.
3. A mechanism for insuring unidirectional flow (valves).

When the blood that is pumped from the left side of the heart reaches the tiny capillaries, virtually all of its force is used up. This part of the circulatory cycle represents only about half the distance the blood must travel in order to reach its eventual destination, the right side of the heart. The blood must be assisted to the right side of the heart by muscular action and the help of the valves.

Most blood vessels are surrounded by muscle tissue and every muscle is not only supplied by numerous blood vessels, it contains many as well. It is the contraction and the expansion of the muscles surrounding the veins that forces the blood back to the right side of the heart.

Every time you bend, twist or turn your arms, legs or midsection, or you place the slightest strain on any of your muscles, this helps to return the blood to the heart and improves the efficiency of blood circulation. The greater and more efficient the blood circulation, the better you feel and the healthier you will remain. Unused, flabby and poorly exercised muscles do not return the blood to the right side of the heart as quickly or effectively as it should be accomplished. At rest, blood travels through the larger arteries at the rate of about 55 feet per minute. This same amount of blood can be made to do two or three times this footage per minute by speeding up the circulation with exercise. This means that an equal amount of blood can be made to do two or three times the work of supplying nutrients to the cells and removing waste products.

The brain is more directly dependent than any other organ of the body upon a constant supply of oxygen which is supplied from the blood stream. Fainting results from no more than a momentary stoppage of oxygen to the brain.

More important, from a nutritional point of view, the volume of blood flowing through a tissue is more important than the amount in that tissue at any given time. In other words, a highly efficient circulation that is stimulated by activity (exercise) is the major factor in cell nutrition, longevity and efficiency. Muscular activity speeds up the normal heart rate forcing it to pump more blood per minute, which not only supplies more oxygen and nutrients, but speeds up the return of blood to the right side of the heart, thus increasing circulation. Inactivity does just the opposite.

NUTRIENTS	IMPORTANCE	DEFICIENCY SYMPTOMS	RDA*	TOXICITY LEVEL
Carbohydrates	Provides energy for body functions and muscular exertions. Assists in digestion and assimilation of foods.	Disturbed balance of water, sodium, potassium, and chloride. Excessive protein breakdown. Fatigue. Loss of energy.		Intake should not exceed what is needed to maintain desirable weight.
Fat	Provides energy. Acts as a carrier for fat-soluble vitamins A, D, E, K. Supplies essential fatty acids needed for growth, health, and smooth skin.	Eczema or skin disorders. Retards growth.		Intake should not exceed what is needed to maintain desirable weight.
Protein	Necessary for growth and development. Acts in formation of hormones, enzymes, and antibodies. Maintains acid-alkali balance. Source of heat and energy.	Diarrhea and vomiting. Edema. Fatigue. Loss of appetite. Stunted growth.		Intake should not exceed what is needed to maintain desirable weight.
VITAMINS				
NUTRIENTS	IMPORTANCE	DEFICIENCY SYMPTOMS	RDA*	TOXICITY LEVEL
Vitamin A (Carotene)	Necessary for growth and repair of body tissues. Important to health of the eyes. Fights bacteria and infection. Maintains healthy epithelial tissue. Aids in bone and teeth formation.	Frequent fatigue. Increased susceptibility to infections. Loss of smell and appetite. Night blindness. Rough, dry, scaly skin.	5,000 IU.	50,000 or more IU may be toxic if there is no deficiency. 10,000 IU is the maximum single dose that can be bought without a prescription.
Vitamin B Complex	Necessary for carbohydrate, fat, and protein metabolism. Helps functioning of the nervous system. Helps maintain gastrointestinal tract. Maintains health of skin, hair, eyes, mouth, and liver.	Acne. Dry, rough, cracked skin. Dull, dry, or gray hair. Fatigue. Gastrointestinal tract disorders. Poor appetite.	See individual B vitamins.	See individual B vitamins: relatively nontoxic.
Vitamin B-1 (Thiamine)	Necessary for carbohydrate metabolism. Helps maintain healthy nervous system. Stabilizes the appetite. Stimulates growth and good muscle tone.	Fatigue. Gastrointestinal problems. Heart disorders. Loss of appetite. Nerve disorders.	0.5 mg per 1000 calories consumed. 1.4 mg for men. 1.0 mg for women.	No known oral toxicity. Single doses of up to 500 mg are available without prescription.

NUTRIENTS

IMPORTANCE	DEFICIENCY SYMPTOMS	RDA *	TOXICITY LEVEL
Vitamin B-2 (Riboflavin) Necessary for carbohydrate, fat, and protein metabolism. Aids in formation of antibodies and red blood cells. Maintains cell respiration.	Cracks and sores in mouth. Dermatitis. Digestive disturbances. Eye problems. Retarded growth.	0.55 mg per 1000 calories consumed. 1.6 mg for adults.	No known oral toxicity. Single doses of 100 mg are available without prescription.
Vitamin B-6 (Pyridoxine) Necessary for carbohydrate, fat, and protein metabolism. Aids in formation of antibodies. Helps maintain balance of sodium and phosphorus.	Anemia. Dermatitis. Mouth disorders. Muscular weakness. Nervousness. Sensitivity to insulin.	0.2 mg for each 100 mg of protein. 1.8 mg for men. 1.5 mg for women.	No known oral toxicity. Single doses of 100 mg are available without prescription.
Vitamin B-12 (Cyanocobalamin) Essential for normal formation of blood cells. Necessary for carbohydrate, fat, and protein metabolism. Maintains healthy nervous system.	Brain damage. Nervousness. Neuritis. Pernicious anemia.	3 mcg for adults.	No known oral toxicity even with intake as high as 600-1,200 mcg.
Vitamin B-13 (Orotic Acid) Needed for metabolism of some B vitamins.	Degenerative disorders.	No RDA.	No known toxicity.
Biotin Necessary for carbohydrate, fat, and protein metabolism. Aids in utilization of other B vitamins.	Depression. Dermatitis. Grayish skin color. Impairment of fat metabolism. Muscle pain. Poor appetite.	150-300 mcg usually meets daily needs. No RDA.	No known oral toxicity. Single doses up to 50 mcg are available without prescription.
Choline Important in normal nerve transmission. Aids metabolism and transport of fats. Helps regulate liver and gallbladder.	Fatty liver. Hemorrhaging kidneys. High blood pressure.	No RDA, but the average diet yields 500-900 mg per day.	No known oral toxicity, even with intake as high as 50,000 mg daily for one week.
Folic Acid (Folacin) Important in red blood cell formation. Aids metabolism of proteins. Necessary for growth and division of body cells.	Anemia. B-12 deficiency. Gastrointestinal disorders. Poor growth.	400 mcg for adults.	No toxic effects. Single doses up to 400 mcg are available without prescription.
Inositol Necessary for formation of lecithin. May be indirectly connected with metabolism of fats, including cholesterol. Vital for hair growth.	Constipation. Eczema. Hair loss. High blood cholesterol.	No RDA.	No known toxicity. Single doses up to 500 mg are available without prescription.

* Recommended Dietary Allowances. Goodhart and Shills, Modern Nutrition in Health and Disease, p. 365.

NUTRIENTS	IMPORTANCE	DEFICIENCY SYMPTOMS	RDA *	TOXICITY LEVEL
Copper	Aids in formation of red blood cells. Part of many enzymes. Works with Vitamin C to form elastin.	General weakness. Impaired respiration. Skin sores.	0.08 mg per kilogram of body weight. 2 mg for adults.	20 times RDA over prolonged period may cause toxicity.
Fluorine	May reduce tooth decay by discouraging the growth of acid-forming bacteria.	Tooth decay.	No RDA.	Excessive intake of fluorine may have side effects in some persons.
Iodine	Essential part of the hormone thyroxine. Necessary for the prevention of goiter. Regulates production of energy, rate of metabolism. Promotes growth.	Cretinism in children born to iodine-deficient mothers. Dry skin and hair. Enlarged thyroid gland. Loss of physical and mental vigor.	100 mcg women. 130 mcg men.	Up to 1,000 mcg daily produced no toxic effects in persons with normal thyroid.
Iron	Necessary for hemoglobin and myoglobin formation. Helps in protein metabolism. Promotes growth.	Anemia. Constipation. Paleness of skin. Weakness.	10 mg men. 18 mg women.	100 mg daily over prolonged period of time may be toxic in some individuals.
Magnesium	Acts as a catalyst in the utilization of carbohydrates, fats, protein, calcium, phosphorus, and possibly potassium.	Muscular excitability. Nervousness. Tremors.	350 mg men. 300 mg women.	30,000 mg daily may be toxic in certain individuals with kidney malfunctions.
Manganese	Enzyme activator. Plays a part in carbohydrate and fat production. Necessary for normal skeletal development. Maintains sex hormone production.	Ataxia. Blindness and deafness in infants. Convulsions. Dizziness. Paralysis.	No RDA. Average diet supplies 3.0-9.0 mg.	Excessive intake may have side effects in certain persons. Single doses of up to 60 mg are available without prescription.
Molybdenum	Acts in oxidation of fats and aldehydes. Aids in mobilization of iron from liver reserves.	Premature aging.	No RDA. Minute amounts found in body.	5.0-10 ppm is considered toxic.
Phosphorus	Works with calcium to build bones and teeth. Utilizes carbohydrates, fats, and proteins. Stimulates muscular contraction.	Irregular breathing. Loss of weight and appetite. Pyorrhea.	800 mg for adults.	No known toxicity.
Potassium	Works to control activity of heart muscles, nervous system, and kidneys.	Cardiac arrest. Poor reflexes. Respiratory failure.	No RDA. Average daily intake is 2,000-2,500 mg.	No known toxicity.

* Recommended Dietary Allowances.
Goodhart and Shils, Modern Nutrition in Health and Disease, p. 365.

IMPORTANCE	DEFICIENCY SYMPTOMS	RDA *	TOXICITY LEVEL
Selenium Works with Vitamin E. Preserves tissue elasticity.	Premature aging.	No RDA.	5.0-10 ppm is considered toxic.
Sodium Maintains normal fluid levels in cells. Maintains health of the nervous, muscular, blood, and lymph systems.	Intestinal gas. Loss of appetite. Muscle shrinkage. Muscle weakness. Nausea.	3.0-7.0 g sodium. 6.0-18 g sodium chloride.	Excessive sodium intake may have adverse effects. Intake of 14-28 g of sodium chloride (salt) is considered excessive.
Sulfur Part of amino acids. Essential for formation of body tissues. Part of the B Vitamins. Plays a part in tissue respiration. Necessary for collagen synthesis.		The RDA of protein supplies sufficient amounts of sulfur.	Not available for over-the-counter sales.
Vanadium Inhibits cholesterol formation.		No RDA.	No known toxicity.
Zinc Component of insulin and male reproductive fluids. Aids in digestion and metabolism of phosphorus. Aids in healing process.	Delayed sexual maturity. Prolonged healing of wounds. Retarded growth.	15 mg for adults.	Relatively nontoxic. 50 mg available without prescription.
Water Part of blood, lymph, and body secretions. Aids in digestion. Regulates body temperature. Transports nutrients and body wastes.	Dehydration.		
Laetrile (Vitamin B-17) Has been linked to cancer prevention.	Diminished resistance to malignancies.	No RDA.	More than 1.0 g taken at one time may prove toxic. 0.25-1.0 g at a mealtime is usual dosage.
Niacin (Nicotinic Acid, Niacinamide) Necessary for carbohydrate, fat, and protein metabolism. Helps maintain health of skin, tongue, and digestive system.	Dermatitis. Nervous disorders.	0.6 mg per 100 calories. 18 mg for men. 13 mg for women.	100-300 mg nicotinic acid orally or 30 mg intravenously may produce side effects for some individuals. No effects with niacinamide.
PABA Aids bacteria in producing folic acid. Acts as a coenzyme in the breakdown and utilization of proteins. Aids in formation of red blood cells. Acts as a sunscreen.	Constipation. Depression. Digestive disorders. Fatigue. Graying hair. Headache.	No RDA.	Single doses of 100 mg are available without prescription. Continued high ingestion may be toxic.

* Recommended Dietary Allowances.
Goodhart and Shils, Modern Nutrition in Health and Disease, p. 365.

NUTRIENTS	IMPORTANCE	DEFICIENCY SYMPTOMS	RDA*	TOXICITY LEVEL
Panagamic Acid (Vitamin B-15)	Helps eliminate hypoxia. Helps promote protein metabolism. Stimulates nervous and glandular system.	Diminished oxygenation of cells.	No RDA.	500 mg tolerated daily with no toxic effect.
Pantothenic Acid	Aids in formation of some fats. Participates in the release of energy from carbohydrates, fats, and protein. Aids in the utilization of some vitamins. Improves body's resistance to stress.	Increased susceptibility to infection. Restlessness. Sensitivity to insulin. Stomach stress. Vomiting.	0.5-10.0 mg for both adults and children is considered adequate.	10,000-20,000 mg as a calcium salt may have side effects in some persons.
Vitamin C	Maintains collagen. Helps heal wounds, scar tissue, and fractures. Gives strength to blood vessels. May provide resistance to infections. Aids in absorption of iron.	Bleeding gums. Bruising. Impaired digestion. Nosebleeds. Slow-healing wounds and fractures. Swollen or painful joints.	45 mg for adults.	Essentially nontoxic. 5,000-15,000 mg daily over a prolonged period may have side effects in some persons.
Vitamin D	Improves absorption and utilization of calcium and phosphorus required for bone formation. Maintains stable nervous system, normal heart action.	Inadequate absorption of calcium. Poor bone and tooth formation. Retention of phosphorus in kidney. Softening of bones and teeth.	400 IU for adults.	25,000 IU may be toxic in some individuals over extended period of time. 400 IU is the maximum single dose that can be purchased without a prescription.
Vitamin E	Protects fat-soluble vitamins. Protects red blood cells. Essential in cellular respiration. Inhibits coagulation of blood by preventing blood clots.	Abnormal fat deposits in muscles. Muscular wasting. Rupture of red blood cells.	15 IU men, 12 IU women.	Essentially nontoxic. 4.0-12.0 g (4,000-30,000 IU) of tocopherol for prolonged periods produces side effects in some persons.
Vitamin F	Important for respiration of vital organs. Helps maintain resilience and lubrication of cells. Helps regulate blood coagulation. Essential for normal glandular activity.	Brittle, lusterless hair. Brittle nails. Dandruff. Diarrhea. Varicose veins.	No RDA, 10% of total calories. Men need five times more than women.	Intake should not exceed what is needed to maintain desirable weight.

*Recommended Dietary Allowances.
Goodhart and Shils, Modern Nutrition in Health and Disease, p. 365.

NUTRIENTS

Vitamin K

IMPORTANCE

Necessary for formation of prothrombin; needed for blood coagulation.

DEFICIENCY SYMPTOMS

Lack of prothrombin, increasing the tendency to hemorrhage.

RDA*

No RDA.
300-500 mcg daily is considered adequate.

TOXICITY LEVEL

The menadione (synthetic Vitamin K) may have side effects in newborn infants. Available in alfalfa tablet form.

Bioflavonoids

Help increase strength of capillaries.

Tendency to bleed and bruise easily.

No known toxicity.

NUTRIENTS

Calcium

IMPORTANCE

Sustains development and maintenance of strong bones and teeth.
Assists normal blood clotting, muscle action, nerve function, and heart function.

DEFICIENCY SYMPTOMS

Back and leg pains.
Brittle bones.
Softening bones.
Tetany.

RDA*

800-1,400 mg, depending upon age.

TOXICITY LEVEL

Excessive intakes of calcium may have side effects in certain persons.
No known oral toxicity.

Chlorine

Regulates acid-base balance.
Maintains osmotic pressure.
Stimulates production of hydrochloric acid.
Helps maintain joints and tendons.

Impaired digestion.
Loss of hair and teeth.
Poor muscular contractibility.

No RDA

Daily intake of 14-28 g of salt (sodium chloride) is considered excessive.
Excessive intake of chlorine may have adverse effects.

Chromium

Stimulates enzymes in metabolism of energy and synthesis of fatty acids, cholesterol, and protein.
Increases effectiveness of insulin.

Atherosclerosis.
Depressed growth rate.
Glucose intolerance in diabetics.

No RDA.
Average daily intake is 80-100 mcg for adults.

No known toxicity.

Cobalt

Functions as part of Vitamin B-12.
Maintains red blood cells.
Activates a number of enzymes in the body.

Pernicious anemia.
Slow rate of growth.

No RDA.
Average daily intake is 5.0-8.0 mcg.

Excessive intakes of cobalt may have side effects in certain persons.
Available by prescription only.

* Recommended Dietary Allowances.

Goodhart and Shils, Modern Nutrition in Health and Disease, p. 365.

ABS — Abbreviation for abdominals: that part of the body which lies between the diaphragm and the pelvis. In weight training it is more thought of for the muscles in this area than the housing for organs.

BAD DAY — A way of indicating one is not up to par either physically or mentally, or both.

BAD SKIN — Referring to the condition of the skin, such as skin blemishes, wrinkles, skin tone, or color.

BARBELL — A weight used for exercise, usually in the form of disks connected by a rigid handle five to seven feet in length.

BI'S — Abbreviation for bicep. A muscle which has two heads or points of origin: specifically applied to the upper arm.

BULKING UP — Gaining body weight by adding both fat and increased muscle density.

BURNS — Exercising a muscle to near failure and then forcing the muscle to continue the movement until the lactic acid build-up in the muscle causes a burning sensation.

CARDIOVASCULAR TRAINING — A form of physical conditioning to strengthen the heart and blood vessels.

CHEATING — To use too much weight for an exercise, therefore relying on surrounding muscle groups to assist in the movement.

CLOSE SPOT — To be alert and ready to assist if called upon by someone performing an exercise.

CIRCUIT TRAINING — A form of exercising by going from one exercise apparatus to another for a prescribed number of times on each apparatus.

CRAMPING — Exercising a muscle by using shortened movements, trying to cause the muscle to cramp.

CUTTING UP — When more muscularity is desired. Not necessarily caused by loss of body weight but possibly assisted by intensive training and concentration, plus diet.

DEF — Abbreviation for definition. Muscles having a clear, sharp outline with a minimal amount of fat in the muscle.

DELTS — Abbreviation for deltoids: denoting the large triangular muscle of the shoulder which raises the arm away from the side.

DRYING OUT — To encourage loss of body fluids by eliminating salts from the diet, perspiring heavily, limiting the amount of fluids taken, or using diuretics.

DUMBBELL — A weight usually in the form of disks connected by a rigid handle approximately seven inches long.

EASY SET — To describe the performance of an exercise indicating it was not close to a maximum effort.

FLEX — To bend or curve the arm, to contract or extend a muscle.

FLUSH — To cleanse a muscle by increasing the blood supply to the muscle, removing poisons left in the muscle by exertion.

FORCED BREATHING — Taking exceptionally large breaths of air, forcing the rib cage to expand to its largest.

FORCED REPETITIONS — Performing additional repetitions of an exercise by relying on assistance when the muscle can no longer complete the movement on its own.

FREE HAND EXERCISE — Exercise that can be performed without equipment, using body weight for the resistance of one muscle group against another.

GEAR — Training clothes and equipment used for athletic endeavors.

GEAR UP — To become more alert of the task by mentally preparing to perform the task.

GETTING COLOR — Sun bathing.

GLUTS — Abbreviation for gluteus maximus. Any of the three muscles that form each of the buttocks and are to extend, abduct, or rotate the thigh.

GO FOR MAX — Denoting the desire to attempt maximum effort for one or more repetitions of an exercise.

HAMSTRINGS — In human anatomy, a tendon of the thigh muscle at the back of the knee.

HAND OFF — Assisting in getting a weight in proper position to commence an exercise.

HARD SET — Description used to indicate a near maximum effort was used to perform a prescribed number of repetitions of an exercise.

HI CARBO DIET — A diet plan that is high in carbohydrates. Normally used in conjunction with a high calorie diet for gaining added body strength and weight.

HI CYCLE — The biophysical peak when body functions are performing their best, causing greater physical endurance and strength.

LATS — Abbreviation for latissimus dorsi: a large muscle of the back that draws the arm downward, backward, and rotates it.

LAY OFF — Taking time off from weight training for one reason or another.

LIFT OFF — Assisting in getting a weight in proper position to commence an exercise.

LOW CARBO DIET — A diet plan that is low in carbohydrates. Normally used when a loss of body weight or more muscularity is desired.

LOCK OUT — Doing a partial repetition of an exercise by pushing a weight through the last few inches of the movement.

LOOSE WEIGHTS — Extra weights that are available for increasing additional poundage.

LOW CYCLE — The biophysical low when body functions are performing at a low ebb causing loss of physical endurance and strength.

MIDSECTION — The referring to the muscles of the abdominal area: such as the upper abdominals, lower abdominals, oblique and rectus muscles.

MUSCLE HEAD — Slang expression for those who are so fanatical about training it completely dominates their lives.

MUSCLE SPASM — An abnormal, sudden, and involuntary contraction of one or more muscles or muscular fibers.

NON LOCKS — Performing an exercise without moving the weight through the complete range of motion at the top. Failing to lock out the elbows or knees.

OBLIQUES — Abbreviation for external obliques: the muscle that rotates the pelvis, to that same side, flexes pelvis on chest.

ODD LIFTS — Exercises other than the snatch and clean and jerk which are used for competition such as the squat, bench press or barbell curl.

OLD TIMER — One who has been into weight training for several years, continuing to take an active part in the sport.

OLYMPIC SET — A barbell set made especially for competition. The bar is approximately seven feet long. The moving parts have either brass bushings or bearings. The plates are machined for more accurate weight.

OVER TRAIN — When an exercise program has become too boring or strenuous causing a loss in either size, strength or mental drive.

PARTIAL REPS — Performing an exercise without moving the weight through the complete range of motion at either the beginning of a repetition or at the end of the repetition. Not making a complete contraction or extension of the muscle.

PEAK CONTRACTION — Exercising a muscle by using shortened movements causing the muscle to cramp.

PEC'S — Abbreviation for pectoral muscles of the chest.

POSE — To assume or hold a certain bodily attitude, especially one held for a photograph or physical exhibition.

POSE DOWN — When two or more engage in a posing exhibition at the same time trying to out perform the other.

POWER LIFTS — Three weight lifting movements used in competition consisting of the squat, bench press, and dead lift.

PUMPING UP — To increase the blood supply to a muscle through exercise, causing the muscle to become larger.

REPS — Abbreviation for repetitions. The art of repeating the same exercise again and again.

REP OUT — The art of repeating the same exercise again and again until you fail to complete the movement.

SET — A fixed number of repetitions, such as ten repetitions comprise one set.

SINGLE — A single repetition of an exercise with a given weight.

SKIN TONE — The general appearance of the skin.

SPLIT PROGRAM — A form of training whereas the whole body is not exercised in one session but broken up so certain parts are worked one day and the other parts the following day.

SPOTTER — One who watches closely while an exercise is

being performed and is available for assistance.

STICKING POINT — When progress in adding weight or visible muscular gains come to a halt.

SUPER SET — Alternating back and forth between two exercises until the prescribed number of sets is completed.

SWEAT GEAR — Clothing worn while exercising to keep the body warm and covered.

THICK SKIN — A smoothness to the skin caused by too much fatty tissue between the layers.

TRAINING PARTNER — One who exercises along with another doing the same training program.

TRAPS — Abbreviation for trapezius. Either of a pair of large muscles of the back and neck which draw the head backward or sidewise rotation of the scapula.

TRI SETS — Alternating back and forth between three exercises until the prescribed number of sets is completed.

TRIS — Abbreviation for triceps. A muscle having three heads or points of origin, especially the large muscle at the back of the upper arm that extends the forearm when contracted.

TRIMMING DOWN — To lose body fat taking on a harder muscular appearance.

VASCULAR — One whose veins are predominant.

WRAPS — Pieces of material used to wrap certain joints of the body for additional support.

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